# DOCUMENT RESUME

ED 398 317 UD 031 128

TITLE Report to Congress on Out-of-Wedlock Childbearing.
INSTITUTION National Center for Health Statistics (DHHS/PHS), Hyattsville, MD.
REPORT NO DHHS-(PHS)95-1257; ISBN-0-16-048332-8
PUB DATE Sep 95
NOTE 302p.
AVAILABLE FROM U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328.
PUB TYPE Statistical Data (110) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC13 Plus Postage.
DESCRIPTORS Adolescents; Birth Rate; *Births to Single Women; Cohabitation; Demography; *Early Parenthood; *Marital Status; *One Parent Family; Population Trends; *Pregnancy; Social Problems; Tables (Data); Trend Analysis; Urban Youth
IDENTIFIERS *Single Parents; *Unmarried Parents

ABSTRACT

This report summarizes the current status and trends in nonmarital childbearing in the United States, and presents a series of supplemental papers by experts from social science disciplines. "Nonmarital Childbearing in the United States" (Kristin A. Moore) introduces the topic, indicating that nearly a third of all births in the country occurred outside of marriage in 1993. However, Americans are not having more babies; they are having fewer marriages. "The Demography of Out-of-Wedlock Childbearing" (Stephanie J. Ventura, Christine A. Bachrach, Laura Hill, Kelleen Kaye, Pamela Holcomb, and Elisa Koff) provides the statistics that support the discussion. The following expert papers provide commentary on aspects of the situation: (1) "The Retreat from Marriage and the Rise in Nonmarital Fertility" (Daniel T. Lichter); (2) "Family Structure and Nonmarital Fertility: Perspectives from Ethnographic Research" (Linda M. Burton); (3) "The Effect of the Welfare System on Nonmarital Childbearing" (Robert A. Moffitt); (4) "How Nonmarital Childbearing Is Affected by Neighborhoods, Marital Opportunities and Labor-Market Conditions" (Greg J. Duncan); (5) "Access to and Utilization of Preventative Services: Implications for Nonmarital Childbearing" (Martha R. Burt); (6) "Attitudes, Values, and Norms Related to Nonmarital Fertility" (Arland Thornton); (7) "Risk Factors for Adolescent Nonmarital Childbearing" (Brent C. Miller); (8) "The Consequences of Nonmarital Childbearing for Women, Children, and Society" (Sara S. McLanahan); and (9) "Strategies To Reduce Nonmarital Childbearing" (Theodora Doms). Appendixes present data tables and tables of fertility ratios. (Contains 68 figures, 58 references, 28 appendix tables, 4 tables, and 1 chart in the expert papers.) (SLD)

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
September 1995

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# Report to Congress on Out-of-Wedlock Childbearing

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**
Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
September 1995

DHHS Pub. No. (PHS) 95-1257

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For sale by the U.S. Government Printing Office
Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328
ISBN 0-16-048332-8

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# Introduction

The Violent Crime Control and Law Enforcement Act of 1994 requires that the Secretary, in conjunction with the National Center for Health Statistics, prepare an analysis of the increases in nonmarital (out-of-wedlock) births, provide comparative data from foreign nations, and identify potential causes, antecedents and remedial measures.

Staff from the Office of the Assistant Secretary for Planning and Evaluation, the National Center for Health Statistics/Center for Disease Control and Prevention and the National Institute for Child Health and Development/National Institutes of Health formed a department working group to oversee the completion of this report.

Using data collected by the Department, primarily Vital Statistics and AFDC data, as well as some additional survey data, the report summarizes the current status and trends in nonmarital childbearing. In addition, information on related trends such as sexual behavior and marriage is included. International comparison data are also provided.

In addition, in order to capture the complexity of issues surrounding out of wedlock childbearing, this volume contains a series of supplemental papers by experts from various social science disciplines. Because researchers from different fields approach the issue of nonmarital births from different perspectives, their analyses reveals varied and sometimes contradictory findings. Each author produced a paper that summarizes the major literature related to nonmarital (out of wedlock) fertility in their field. In addition, the experts critically analyzed research findings, identifying areas of consensus, disparity and gaps in knowledge.

The papers on antecedents of nonmarital childbearing include:

- a description of the determinants of marriage;
- an ethnographic analysis of the relationship between family structure and nonmarital childbearing;
- a synthesis of literature that uses multivariate analyses to examine the relationship between public transfer programs and nonmarital births;
- a similar summary that focuses on the role of individual and neighborhood opportunities;
- a discussion of how access to and utilization of preventive services relate to nonmarital childbearing;
- an analysis of how the incidence of nonmarital childbearing varies with changes in social norms, both over time and across populations; and
- a description of the interrelationship of risk factors that lead to nonmarital childbearing by adolescents and identifies the lack of similar research on adults.

Following the papers on antecedents is a paper that discusses the consequences of nonmarital childbearing on both parents and children. The final paper provides a framework for developing remedial measures.

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The Working Group would like to acknowldege the assistance of Sandy Smith, Public Affairs Officer for the National Center for Health Statistics.

# Nonmarital Childbearing in the United States

**Kristin A. Moore, Ph. D.**
Child Trends, Inc.

## Introduction

In 1993, 1,240,172 births occurred outside of marriage in the United States. These births accounted for nearly a third of all births and drew the attention of policy makers, researchers, the media and citizens alike. The purpose of this report is to summarize available scientific information on nonmarital fertility and specifically to address four broad but critical questions.

- First, what are the **trends** in nonmarital childbearing? What is the breadth and magnitude of the increase in nonmarital fertility? Who is having children outside of marriage? How do fertility patterns and trends vary across demographic and social sub-groups?

- What are the **consequences** of nonmarital childbearing for children, for adults, and for the public? What negative consequences can be attributed to nonmarital childbearing per se, as distinct from consequences due to the generally disadvantaged circumstances of the couples who have children without marrying?

- A third important question focuses on the **causes** of the dramatic increase in nonmarital fertility. What factors have contributed to the upsurge in childbearing outside of marriage? Any attempt to address the issues raised by the increased incidence of nonmarital fertility requires an understanding of those factors. Most social and family behaviors are affected by numerous complex forces. Research findings on a variety of individual, family, neighborhood, community and policy factors that might affect the incidence of non-marital childbearing are summarized.

- A fourth topic concerns **prevention** of pregnancy or childbearing among unmarried persons and policies and actions to **ameliorate** the negative consequences associated with parenthood outside of marriage. In particular, issues for federal, state, and local policy makers to consider are outlined, along with suggestions for policy initiatives that might reduce nonmarital parenthood.

Finally, reflecting the dramatic increases in nonmarital sex, pregnancy, and parenthood, the need for further research and better data is addressed.

## What Are the Trends and Patterns in Nonmarital Childbearing?

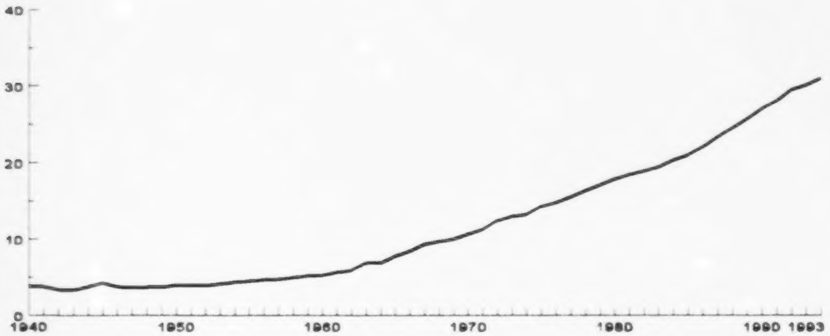
Every indicator points to substantial increases in non-marital fertility in recent decades, but a slowing of the rate of increase in the last several years.

- The number of nonmarital births has increased dramatically, from 89,500 in 1940 to 1,240,172 in 1993. However, the pace of the increase has slowed in the 1990s. Between 1980 and 1990, the number of nonmarital births rose on average by 6 percent annually. Between 1990 and 1993, the number rose by about 2 percent annually.

- The nonmarital birth rate, which measures the proportion of unmarried women who have a birth each year, has also increased. The rate rose from 7.1 births per 1,000 unmarried women in 1940 to 45.3 in 1993. However, after steady and dramatic increases in the late 1970s and the 1980s, the nonmarital birth rate has stayed the same since 1991.

- The nonmarital birth ratio describes the proportion of all births that occur outside of marriage. Between 1940 and 1993, the ratio rose from 38 to 310 per 1,000 births. Expressed as a percent, this means nonmarital births have risen from 4 percent to 31 percent of all births. This reflects both increases in nonmarital fertility and declines in marital fertility Again, the 1990s have seen a slowing of the pace of increase. The nonmarital birth ratio rose by more than 4 percent annually during the 1980-90 decade, and by about 3 percent annually between 1990-93.

**Figure 1. Proportion of Births to Unmarried Women: United States, 1940-1993**



Source: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53); Ventura SJ. JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. National Center for Health Statistics. Vital Statistics of the United States, 1993, Volume I, Natality. In preparation. See Appendix Table I-3

The incidence of nonmarital childbearing has been rising for more than five decades. Between 1940 and 1960, increases were slow but clear. Since the 1970s, increases in the number, rate, and ratio of nonmarital births have been dramatic. Only in the last several years, however, has the pace of the increase slowed. Most notably, the nonmarital birth rate has not increased during the last three years for which data are available.

Increases in the rate of nonmarital childbearing have been steady for teenagers throughout this time period. Among women over age 20, however, nonmarital birth rates rose through the mid-1960s, declined, and then began to increase again in the late 1970s.

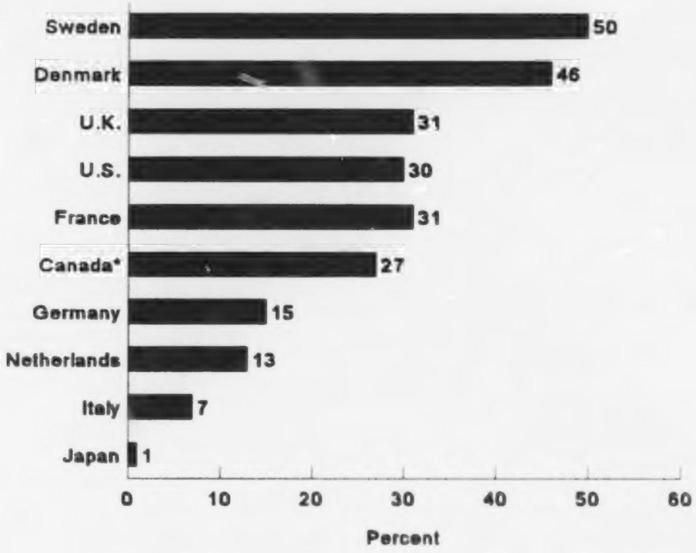
Increases in the proportion of all births that are nonmarital (the nonmarital birth ratio) reflect both an increase in the number of unmarried women in the population who are at risk of a nonmarital pregnancy and also higher rates of nonmarital childbearing. The larger population of unmarried persons is due primarily to delayed marriage among the large baby boom generation, as well as increases in divorce and separation. The combination of a higher rate of nonmarital childbearing together with a larger population of unmarried persons has resulted in a substantial increase in the number and proportion of nonmarital births.

Among all nonmarital births, the proportion that are first births has been declining. In 1993, less than half (48 percent) of all nonmarital births were first births.

It is important to recognize that not all births classified as nonmarital occur to women living alone. More than a quarter of nonmarital births occur to parents who live together without being legally married. Research indicates, however, that these cohabiting relationships are not as long-lasting as legal marriages. Although about four in ten cohabiting couples marry within three years of a birth, the majority do not; moreover, marriages preceded by cohabitation are more likely to dissolve than marriages entered by couples who did not cohabit first.

Other Western industrialized nations are also experiencing increases in the incidence of nonmarital childbearing. Trends toward delayed marriage, premarital sex, and cohabitation outside of marriage have occurred in a number of other countries. In 1992, the percent of births to unmarried women in the United States was 30 percent, but was higher in the United Kingdom, Denmark and Sweden. Americans are unique primarily because of relatively low levels of contraceptive use and very high rates of adolescent childbearing, compared with other industrialized democracies.

**Figure 2. Percent of Births to Unmarried Women by Country, 1992**



*1991 data.

Sources: Council of Europe. Recent Demographic Developments in Europe, 1993. Council of Europe Press. 1994; Statistics and Information Department, Ministry of Health and Welfare. Vital Statistics of Japan. 1992; Central Agency for Austrian Statistics. Demographic yearbook. Austria. 1992; Belle M. McQuillan K. Births Outside of Marriage: A Growing Alternative, Canadian Social Trends. Summer 1994. Statistics Canada.

## Who Has Births Outside of Marriage?

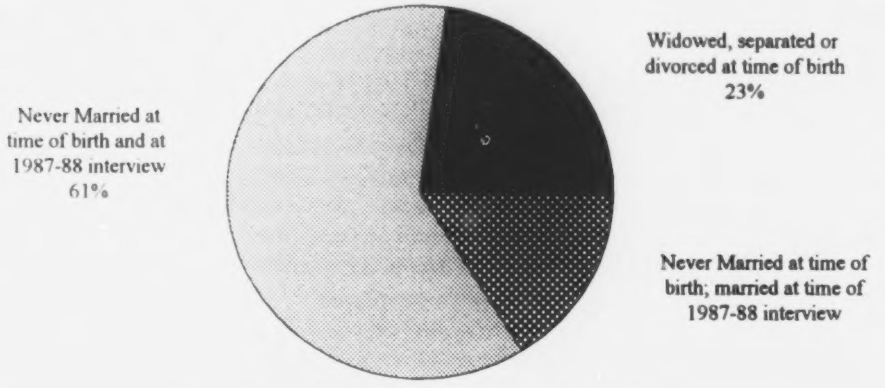
Contrary to commonly-held beliefs, only 30 percent of all nonmarital births in the United States occur to teenagers. Thirty-five percent of nonmarital births are to women aged 20-24, while 35 percent are to women 25 and older. On the other hand, teenagers account for about half of all *first* births to unmarried women. Although the nonmarital birth rate is higher for African Americans than for whites, the majority of nonmarital births (60 percent in 1993) are to white women and the rate is rising faster among white women.

Nonmarital birth rates are highest during the years from 18 to 29. Nonmarital birth rates tend to be higher among disadvantaged and less-educated women and those in urban areas. Among unmarried women aged 20 and older, women with less than a high school diploma are at least three times as likely to have a baby as unmarried women with some college. However, during the past decade, the nonmarital birth rate has risen in all age groups, in small towns as well as in cities, in all regions and states, and in all socioeconomic groups.

When they hear the phrase "unmarried parent," many Americans picture a teenage girl having a first child. However, there is no typical nonmarital birth. Nonmarital births can be first births, second births, or higher-order births. Nonmarital births can precede a first marriage; they can occur to a parent who is not married and who never marries; they can occur within a cohabiting relationship; or they can occur to a parent whose marriage has terminated. A woman with several children may have had one or more births within marriage and one or more births outside of marriage. It is important to note that more than 70 percent of single parent families have only one or two children.

Among the women interviewed in the National Survey of Families and Households was a substantial sub-sample who had a nonmarital birth between 1983 and the time of their interview in late 1987 or 1988. Of the women who had a nonmarital birth during the previous five years, 61 percent were never-married at the time they were interviewed; 16 percent had the birth outside of marriage but had married by the time of their interview; and 23 percent had the birth after the dissolution of their marriage.

**Figure 3. Circumstances in which Nonmarital Births Occur: United States, 1987-88**



Source: National Survey of Families and Households, 1987-88

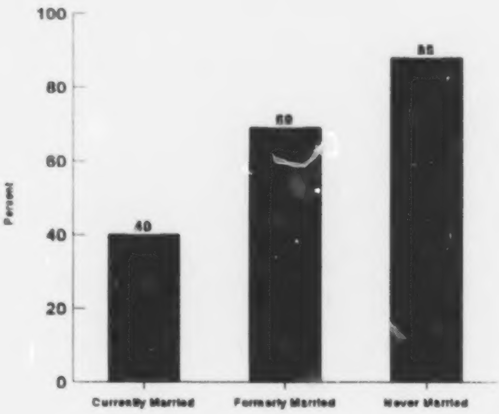
## Path to Parenthood Outside of Marriage

Nonmarital parenthood is preceded by a series of decision points, including decisions about sex, contraceptive use, abortion, marriage, and adoption. Over the past several decades, premarital and nonmarital sex have become more common among adolescents and among Americans older than 20. Among women born between 1954 and 1963, who ever married, 82 percent had sex before they married. With delayed marriage and increasing rates of marital disruption, the size of the population at risk of having a nonmarital pregnancy has expanded substantially.

Despite increases in the proportion of unmarried sexually active persons who use contraception, data indicate that married women are more regular users of contraception than unmarried women. In 1988, among sexually active women, 17 percent of never-married women and 11 percent of previously married women were not using contraception, compared with only 5 percent of currently married women. These differences reflect a variety of factors, including more stable and predictable relationships among married couples, the higher incomes of married couples, and frequently a greater ease in discussing and planning for sex among married couples. Nevertheless, 82 percent of unmarried sexually active women were contraceptive users in 1988, primarily relying on the pill (39 percent), sterilization (19 percent) and condoms (12 percent). Couples who do not use any method of contraception contribute disproportionately to the incidence of unintended pregnancy; however, rates of method failure are also high, especially for methods that have to be used at the time of intercourse, such as spermicides.

The vast majority of pregnancies and births to unmarried women are unintended at conception. Data from the 1988 National Survey of Family Growth indicate that 88 percent of the pregnancies experienced by never-married women were unintended, as were 69 percent of the pregnancies to previously married women and 40 percent of the pregnancies to married women.

**Figure 4. Percent of Pregnancies to Women 15-44 that are Unintended, by Marital Status, 1987**



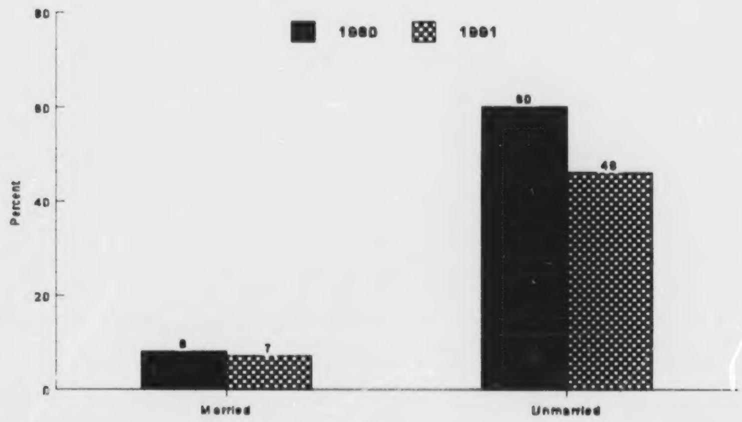
Source: Forrest J.D. 1994. Epidemiology of Unintended Pregnancy and Contract Use. *American Journal of Obstetric Gynecology* 170: 1485-1488.

It takes sustained motivation to abstain from sex and/or contracept consistently, and for a variety of reasons such motivation is often lacking. Factors such as over-estimation of the risks of contraception, under-estimation of the likelihood of pregnancy, a lack of educational and career opportunities, passivity and/or impulsiveness, the cost of contraception, and ambivalence about sex, birth control, and pregnancy undermine the motivation to prevent pregnancy. In addition, sexual intercourse is coerced in some cases. In fact, data indicate that, among girls 14 or younger when they first had sex, a majority of these first intercourse experiences were nonvoluntary. Evidence also indicates that among unmarried teenage mothers, two-thirds of the fathers are age 20 or older, suggesting that differences in power and status exist between many sexual partners. These differences may be another factor undermining contraceptive use, especially when the female is quite young. Consequently, many couples who don't seek pregnancy nevertheless experience pregnancy.

Little progress was made in reducing the rate of nonmarital pregnancies during the 1980s. The nonmarital pregnancy rate increased among white women between 1980 and 1991 (from 69 to 81 pregnancies per 1,000 unmarried women aged 15-44), while it declined slightly among women of other races between 1980 and 1991 (from 180 to 174 pregnancies per 1,000 unmarried women aged 15-44). Unmarried women experience an estimated 2.8 million pregnancies annually.

The probability that a nonmarital pregnancy resulted in a birth increased between 1980 and 1991, as the proportion of nonmarital pregnancies that ended in abortion declined from 60 to 46 percent. This decline in abortion was particularly large among white women. In 1991, nonmarital pregnancies were equally likely to end in birth or abortion; about one in ten ended in miscarriage.

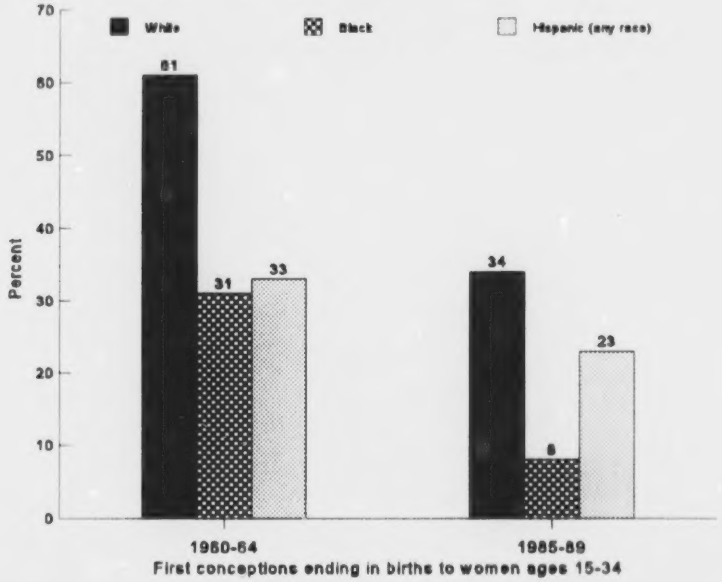
**Figure 5. Percent of Pregnancies Ending in Abortion by Marital Status among Women of all Races, Aged 14-55: United States, 1980 and 1991**



Source: Ventura et al. 1995. Trends in Pregnancies and Pregnancy Rates: Estimates for the United States, 1980-92. *Monthly Vital Statistics Report,* 43(11). Hyattsville, MD: National Center for Health Statistics.

The declines in marriage among couples experiencing a nonmarital pregnancy are as dramatic as the recent declines in abortion. If unmarried pregnant women who have a live birth had married at the same rate in the mid-1980s as they did in the 1960s, the increase in nonmarital births would have been quite small. However, "shotgun" marriages have become the exception rather than the rule. From the 1960s to the 1980s, the proportion of nonmarital conceptions carried to a live birth in which the parents married before their child was born plummeted from 31 to 8 percent among blacks, from 33 to 23 percent among Hispanics, and from 61 to 34 percent among whites.

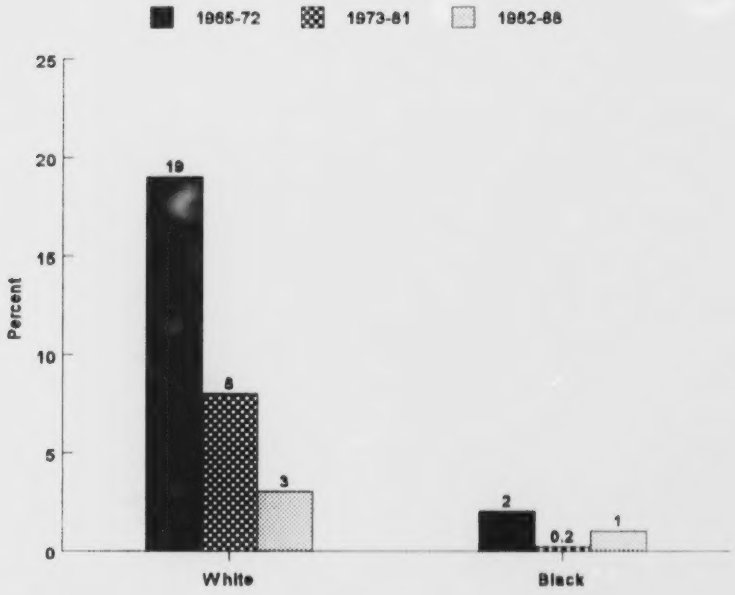
**Figure 6. Among Women who Conceived Before Marriage, Percent Marrying Before Birth of Child**



Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, No.454, *Fertility of American Women: June 1990.* Washington, DC.: U.S. Government Printing Office

Since adoption occurs after childbirth, it does not affect nonmarital birth rates; but the declining incidence of adoption has served to increase the number of unmarried persons raising children. Between 1960 and 1973, about one in five premarital births to white women were given up for adoption, compared to less than one in ten in the late 1970s and only one in thirty in the 1980s. Formal adoption is rarely chosen by unmarried black or Hispanic parents.

**Figure 7. Among Children Born to Never Married Women Aged 15-44, Percentage Who Were Relinquished for Adoption, by Race and Year of Birth: United States**



Source: Bachrach, C. et al. 1992. Relinquishment of Premarital Births: Evidence from National Surey Data. *Family Planning Perspectives* 24(1):27-33.

## What Are the Consequences of Nonmarital Childbearing For Women, Children, and Society?

The central, and very difficult, task in identifying the consequences of non-marital childbearing is to disentangle the effects of a person's marital status at childbirth from the effects of the person's other characteristics. The men and the women who become parents outside of marriage tend to be disadvantaged even before pregnancy occurs. If their children have problems or they receive public assistance, researchers must distinguish whether these negative consequences occur because the child was born outside of marriage or because of the parents' pre-existing disadvantages.

The answer provided by research to date is that pre-existing factors account for much but not all of the difficulties experienced by children and adults in single-parent families. Despite consistent evidence of greater risk, the research also shows that the majority of children in single parent families develop normally. The exact magnitude of the effects that are caused by nonmarital childbearing has not been isolated, but effects have been characterized as small to moderate, depending on the outcome being examined.

To date, little research has specifically examined the consequences of nonmarital childbearing. Thus, although a great deal of research has examined outcomes for children and mothers in single parent families, most studies of family structure have looked at single parent families without distinguishing among divorced, separated, widowed, and never-married families. These studies have found that unmarried mothers are less likely to obtain prenatal care and more likely to have a low birthweight baby. Young children in single-mother families tend to have lower scores on verbal and math achievement tests. In middle childhood, children raised by a single parent tend to receive lower grades, have more behavior problems, and have higher rates of chronic health and psychiatric disorders. Among adolescents and young adults, being raised in a single-mother family is associated with elevated risks of teenage childbearing, high school dropout, incarceration, and with being neither employed nor in school.

Researchers find that these negative effects persist even when they take into account factors, such as parented education, that often distinguish single parent from two-parent families. Other pre-existing differences may, of course, still distinguish single-parent families from two-parent families. Researchers have increasingly attempted to take account of subtle and difficult-to-measure variations in motivation, values, aptitude, and mental and physical health. To date, such analyses continue to find poorer outcomes among children in single-parent families.

Up to half of the negative consequences for children associated with single motherhood appear to reflect the low incomes of these families. The remaining effects seem to be due to greater residential instability, pre-disruption conflict, and less parental supervision and/or involvement in childrearing. Studies do not find that (re)marriage resolves the negative consequences associated with growing up in a single parent family.

Single mothers themselves experience elevated rates of depression, low self esteem, poor health, and general unhappiness. In addition, their marriage prospects are reduced relative to women who do not have a premarital birth. They also have an elevated probability of receiving not only Aid to Families with Dependent Children but Food Stamps and Medicaid. In 1992, 58 percent of AFDC children were in families with never-married mothers.

As yet, little research has examined the consequences for men, though recent work indicates that men who do not marry experience few socioeconomic costs. Also, as noted only a few studies have compared outcomes for the children of never-married mothers with outcomes for children in other types of single- parent families. Results from these studies suggest that the consequences for children raised by never-married mothers are similarly negative to those of children in disrupted families. The optimum family situation for children is being born into and growing up in a family established by both biological parents, particularly if it is a low-conflict family.

Thus, the research to date indicates that, given current economic and social realities, nonmarital childbearing has negative consequences for children, for women, and for taxpayers. What factors account for the high and increasing incidence of nonmarital childbearing in the United States?

## Causes of Nonmarital Childbearing

During the last several decades, when the incidence of nonmarital childbearing was increasing so dramatically, numerous other changes were witnessed in virtually every other sector of society. Consequently, not only is it difficult to disentangle what role these changes have played in increasing nonmarital fertility, it is unlikely that there is a single factor that explains this important social change. Rather, possible influences on nonmarital fertility range from individual and family characteristics, to peer, neighborhood and community influences, to local, state and federal policies and programs, and to larger influences such as the media and changes in attitudes, values and norms. Few studies have examined the predictors of nonmarital fertility using all of these measures. Indeed, studies that focus specifically on nonmarital childbearing are not frequent, though the number of studies is increasing in response to the rising incidence of nonmarital childbearing and the concerns of policy makers. Findings from the available literature are summarized below.

## The Role of Welfare

A commonly offered explanation for nonmarital childbearing is the availability of welfare benefits for single mothers. This proposition takes two forms. The first hypothesizes that variation in the generosity of welfare benefits over time and among states has contributed to the growth in the incidence of nonmarital childbearing. A second hypothesis focusses on the existence of the program *per se* and asks whether and how the incidence of nonmarital childbearing would change if welfare were not available to unmarried mothers. Researchers have little capacity to address the second question because welfare is available in all states. A number of studies have addressed the first question, however, by examining whether states with more generous programs have higher rates of nonmarital childbearing or, sometimes, of teenage childbearing.

States differ on a host of dimensions apart from their welfare policies and fertility rates which might also affect the nonmarital fertility rate. Therefore, varied statistical strategies have been used to make comparisons across states more appropriate. Results from these studies are inconsistent; but when an association is found between welfare benefit levels and nonmarital fertility it generally applies only to whites. Moreover, when associations are found, they tend to be small. Given that welfare benefits declined during the 1970s and 1980s, availability of benefits cannot provide more than a partial explanation for increases in nonmarital fertility.

Welfare policy has also been hypothesized to affect marriage decisions. Given trends toward delayed marriage, high rates of divorce and separation, declining remarriage rates, and more frequent cohabitation, half of U.S. women aged 15-44 had either never married or were no longer married in 1993. The possibility that welfare accounts for some of these marital trends has been examined in several studies with mixed results. Some studies find an association, while others do not. Again, the decline in marriage occurred during a time period when welfare benefits were also declining, making it unlikely that welfare represents a major cause of the decline in marriage.

An additional possible influence of welfare has received little research attention. The hypothesis is that receipt of welfare on the part of one generation increases the propensity to avoid marriage and/or to have births outside of marriage in the next generation. The limited evidence on this issue suggests that long-term intergenerational welfare receipt may increase the risk of nonmarital childbearing; but it should be noted that long-term recipients represent a small and uniquely disadvantaged portion of all women (less than 3 percent of all women).

In sum, the evidence linking welfare benefits with rising nonmarital fertility is not consistent and does not suggest that welfare represents an important factor in recent increases in childbearing outside of marriage. A number of other explanations for rising rates of nonmarital childbearing have also been explored.

## Economic Opportunities for Women and for Men

It has been suggested that increased wages and levels of employment for women have freed women from economic dependence on marriage. However, empirical studies have not supported this expectation. Rather, while higher levels of women's education, income and employment have been associated with later marriage, they are related to higher levels of marriage and lower rates of nonmarital childbearing.

Similarly, marriage is more likely for men who are well-educated, employed, and who have stable and high earnings. In addition, the supply of marriageable men (e.g., employed men) is related to the nonmarital *ratio*; that is, the more employed men in a community, the lower the proportion of births that occur outside of marriage. Thus, better employment opportunities for men are associated with a higher proportion of births taking place within marriage.

However, studies regarding the effect of male employment opportunities on the *rate* of nonmarital fatherhood, that is, the frequency of fatherhood among unmarried males, are not consistent. Moreover, economic explanations do not fully explain racial differences in family formation, nor do they provide a complete explanation for rising rates of nonmarital childbearing, as marriage and fertility patterns have changed among all socioeconomic groups. One study estimates that the deteriorating employment and earnings position of young men, particularly those who are poorly educated and minority, accounts for about 20 percent of the decline in marriage between 1950 and 1980. Thus, employment opportunities do not completely explain decreases in marriage or increases in nonmarital fertility. Nevertheless, there is fairly consistent evidence that improved socioeconomic circumstances are associated with a greater likelihood of marriage for both women and men, and that deteriorating economic circumstances, particularly for poorly-educated men, provide at least a partial explanation for rising nonmarital fertility.

## Neighborhood Influences

A variety of mechanisms have been suggested as ways that neighborhoods might influence marital and fertility behavior. For example, undesirable behaviors may be spread throughout a neighborhood by peer interaction. Adult role models may encourage negative or positive behavior. Positive behavior can be encouraged by the monitoring of behavior among neighborhood residents. On the other hand, the lifestyles and standards of better-off neighborhood residents may lead low-income residents to feel discouraged about their own prospects and thus willing to risk a nonmarital birth.

Some evidence has been found that neighborhoods affect behavior. For example, the absence of advantaged neighbors has been found associated with teenage childbearing, and the presence of high proportions of public assistance recipients has been found to be related to nonmarital childbearing. However, because disadvantaged neighborhoods tend to have multiple negative characteristics, while advantaged neighborhoods tend to enjoy a variety of positive attributes, it is difficult to distinguish among the various explanations. Moreover, most studies have found that individual and family characteristics are even more important than neighborhood and community characteristics as predictors of marital and fertility behavior.

Variations in neighborhood characteristics cannot fully explain the increase in nonmarital childbearing, since increases have occurred across socioeconomic and geographic groups. Although the increasing concentration of impoverished persons within extremely disadvantaged communities does not explain the broader retreat from marriage that appears to be occurring across socioeconomic groups, it may help explain the acutely high proportions of births that occur outside of marriage in extremely impoverished neighborhoods.

## Individual and Family Characteristics

Although relatively little research has been conducted on the family and individual factors leading specifically to nonmarital childbearing, a host of studies have examined the predictors of teenage childbearing. This research consistently identifies several broad categories of factors that predict early sexual activity, pregnancy, and adolescent nonmarital childbearing: school problems, behavior problems, poverty, and family problems. More specifically, school problems include low grades and low educational aspirations. Behavior problems include early smoking, use of illegal drugs, alcohol use, delinquency and discipline problems at school. Poverty at both the family and the community level predict adolescent nonmarital parenthood. Family dysfunction has been examined in many forms. Research indicates that early sexual abuse increases the risk of adolescent childbearing. In addition, frequent residential moves and experiencing parental marital disruption have been found to elevate the risk of adolescent parenthood. Also, varied measures of inadequate parenting, such as poor communication and a lack of monitoring and involvement in the child's activities, have been found to predict adolescent parenthood.

Unfortunately, there are few studies of older unmarried persons, limiting our capacity to provide an assessment of how educational and occupational goals and opportunities, risk-taking, family functioning, and socioeconomic status predict to the occurrence of first and subsequent nonmarital births among adults. Confirming the continuation of patterns identified among adolescents, or revising our understanding regarding older couples, represents a priority for future research.

## Attitudes, Values and Norms

Dramatic changes have occurred in Americans' views of marriage and childbearing. It is difficult to assess whether changes in attitudes have occurred in response to changes in behavior or vice versa. Most probably, influences have occurred in both directions. Moreover, the changes that have occurred in attitudes to date represent a built-in support for sustaining the changes that have occurred, and may provide a momentum for additional increases in nonmarital childbearing.

Major changes have occurred in attitudes about marriage. Although the vast majority of teenagers and young adults expect to marry, only a minority feel that marriage is an essential part of life for them. For example, only one in three young people agree that "It's better for a person to get married than to go through life being single." Similarly, despite a widespread belief that children develop better when they grow up with both parents and negative feelings about divorce as a way to resolve marital problems, four in five young people accept marital dissolution when there are children in the family and parents do not get along. Also, only three in ten young people agree that "single women should not have children, even if they want to."

Living together without being married is also accepted by a majority of contemporary young people, and only one in five express strong moral disapproval. Concomitantly, most younger Americans accept premarital sex at least for older teens and non-teens. Despite strong disagreement on the acceptability of abortion for unmarried people, a substantial majority of Americans think that contraception should be available for teenagers and older persons.

In general, younger persons hold considerably more tolerant attitudes than older persons. Also, more religious persons, regardless of affiliation, tend to hold more traditional attitudes. While youth care about the views of their parents, they tend to be equally or more attentive to the values of their peers on some topics. Indeed, many youth report acceptance of nontraditional marital and fertility behaviors from friends, and some youth report peer pressure to become sexually experienced. Moreover, the greater tolerance in recent years for sex and childbearing outside of marriage extends beyond the individual to family members, religious institutions, the media, and the legal system. Despite this greater tolerance for childbearing outside of marriage, few young people, or their parents, describe adolescent parenthood or nonmarital parenthood as desirable or sought-after events. Rather they are tolerated.

In sum, the data paint a clear picture of increasing and substantial tolerance for nonmarital childbearing and the behaviors leading up to nonmarital childbearing. Even if these tolerant attitudes and values do not actively encourage parenthood outside of marriage for a given individual, they may increase its prevalence by reducing the personal, social and familial pressures that have discouraged nonmarital parenthood in previous generations.

### Strategies to Prevent or Reduce the Incidence of Nonmarital Childbearing

Given that most pregnancies occurring outside of marriage are unintended at the time of conception, there would appear to be substantial common ground between the individuals who have children outside of marriage and the policy makers and citizens who seek a reduction in nonmarital fertility. Despite this common ground, available research doesn't identify any one factor as the reason for the upsurge in nonmarital childbearing. Consequently, an array of interventions must be considered. While varied possibilities are suggested, a number of questions might be considered as policies are formulated.

- Who or what system is the target of a given intervention? Are unmarried teenagers the target, or older unmarried persons as well? Are females the target, or males as well? Are poor persons the target, or all Americans? Are persons having unintended pregnancies the target, or is the target anyone who is not financially prepared to support a child without public assistance?

- What is the objective of the intervention? To delay sexual activity among teenagers? To delay sexual activity until the first marriage? To discourage all sexual activity outside of marriage? To encourage early marriage, to reduce the risk of nonmarital pregnancy? To encourage effective contraceptive use and pregnancy prevention? To encourage certain resolutions of nonmarital births, e.g., adoption, abortion, or marriage?

- What mechanisms that might affect the incidence of nonmarital childbearing are amenable to policy manipulation?

- Is the intervention based on a short-term or a long-term strategy? For example, approaches to increase marriage abortion or adoption would represent short-term interventions, while structural interventions to enhance job opportunities, to change community norms, or to improve education in at-risk communities would represent long-term approaches.

How these questions are answered will presumably reflect considerations beyond the information currently available from statistics and analytic studies. Here, however, the goal is to draw upon available research to suggest a variety of strategies that might be considered by policy makers or program providers as they develop strategies to reduce the incidence of nonmarital childbearing.

#### Family Life and Sex Education

For youth who are enrolled in and attend school, sex education programs can be developed that provide much-needed information about the risks and responsibilities of sexual activity. Research to date suggests that the most effective programs combine the teaching of abstinence with information about contraception; however, as yet even the best programs have had only small to moderate impacts. To date, sex education has been found to increase knowledge, and it has not been found to have unintended effects, such as hastening the initiation of sexual activity. On the other hand, standard sex education has not been found to have very substantial intended effects on behavior, though more comprehensive programs that combine elements such as role playing and assertiveness training have been found to have somewhat larger effects. Consequently, there is a need to develop, implement and evaluate stronger and more comprehensive curricula. In addition, there is a need to develop approaches that build knowledge and attitudes when children are in elementary school and which continue through high school. Parental and community involvement can help assure that programs address community needs and concerns.

However, many youth at risk of a first or second nonmarital pregnancy are not attending conventional high schools or junior high schools. In addition, most unmarried persons are not teenagers. Program providers might therefore consider introducing sex and family life education into job training and GED programs, programs for welfare recipients, television and radio, religious settings, correctional institutions, medical settings, and other places that unmarried people gather.

### Programs to Improve Educational and Occupational Options

Research conducted among adolescents consistently indicates that those teens who become parents are more likely to be having trouble in school and are more likely to come from poor families and communities. Socioeconomic disadvantage also characterizes non-teen unmarried parents. Thus, correlational evidence suggests that enhancing the job skills, occupational prospects, and income of persons who face unstable and poorly-compensated employment opportunities might be a promising strategy for reducing nonmarital childbearing. Such programs may, for example, facilitate marriage by improving the economic prospects of prospective spouses. In addition, enhancing future opportunities for people who often feel they have "nothing to lose" may increase the motivation of disadvantaged persons for preventing early and nonmarital pregnancies. In addition, such programs could help absent parents provide economic resources to marry the children's other parent or at least to provide support for their children. Examining whether past or current job training programs affect not only employment and earnings but also marital and fertility behavior would be a useful addition to public policy discussions. At present, based on the available scientific evidence, it is reasonable to assume that increasing educational and job opportunities represents a promising strategy for promoting marriage and reducing the incidence of adolescent parenthood, unintended pregnancy, and nonmarital childbearing.

### Contraceptive Services

Among all unmarried American women aged 15-44, less than one in ten are sexually active, do not want to become pregnant, and yet do not use contraception. However, these women account for about half of all unintended pregnancies in the United States. The remaining women who had unintended pregnancies were using contraception but experienced the failure of their method, or were not using their method correctly or consistently.

Contraceptives are not used or are inadequately used for a variety of reasons, including a lack of motivation and concern over side effects; however, the cost and accessibility of services constitute an important barrier to the use of effective methods of contraception. Many women lack health insurance, and even those who have insurance often find that family planning services are not covered. Medicaid serves primarily women who are already mothers and/or who receive Aid to Families with Dependent Children, while Title V of the Maternal and Child Health program also focusses primarily on women who are already mothers or who are having a child. Hence, Title X of the Public Health Service Act remains the critical federal source of funding for pregnancy prevention among people who are not already parents or on welfare. Although virtually all states also provide monies for family planning, overall funding for subsidized contraceptive services has declined since 1980. Increased funding for family planning represents an important step in reducing the incidence of nonmarital childbearing.

## Community Awareness and Information Campaigns

Attempts to change individual and community attitudes about nonmarital childbearing (as opposed to adolescent pregnancy) have rarely been initiated or evaluated. Such campaigns could be informational, providing information about services available in the community, or persuasive, attempting to change attitudes about issues such as male involvement in pregnancy prevention and/or childrearing. Community involvement is essential to determine what the message should be, the target of the message, and the manner in which the message is conveyed.

## The Media

Research studies have repeatedly documented the differential attention given in all forms of media to nonmarital sex, sex without commitment, spontaneous unprotected sex, and nonmarital parenthood, compared with the attention given to abstinence, contraception, and marital parenthood. Little information is provided regarding the risks associated with nonmarital sex or the costs of nonmarital parenthood, and relatively few positive role models are provided for stable married sex and parenthood. Whether such differential attention reflects changes in societal attitudes or is a cause of changes in social behavior is not clear; but both directions of influence seem probable. Such one-sided coverage may cause increases in nonmarital childbearing, or may simply miss opportunities to provide accurate information about the responsibilities of parenthood or positive role models for adolescents and adults.

One possible response is for viewers to avoid programming that encourages nonmarital sex and parenthood. However, calls for parents to monitor the programming and reading of their children seem most likely to be responded to by those parents whose children are least at risk. Moreover, appropriate approaches for older unmarried individuals have not been developed and pose substantial complexities in a free market economy and a nation that upholds freedom of speech. The availability of alternative programming (e.g., educational television for children), rating systems, provisions for parents to suppress undesired television shows which can be easily implemented by parents, and the addition of more positive messages (e.g., popular actors and actresses who abstain from sex or who consistently use contraception) represent potential approaches.

## Strengthening Families

Research indicates that children from single parent families face an elevated risk of themselves having an early, nonmarital birth. Thus, reducing nonmarital childbearing might ultimately lower adolescent childbearing.

Research indicates, moreover, that a majority of unmarried mothers had their first birth as teenagers. Numerous studies of adolescent sexual and fertility behavior suggest that family problems are a risk factor for early parenthood. Varied approaches to prevent sexual abuse, to support and preserve families, to involve members of the extended kin network in childbearing, and to strengthen the childrearing knowledge and practices of both mothers and fathers have been developed. Such approaches might prevent early nonmarital childbearing. They might also assist unmarried parents to provide a more supportive environment for their children. Whether such

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interventions might have long-term impacts in preventing unintended and nonmarital childbearing is a question in need of rigorous evaluation.

Other approaches might focus on the marital bond, seeking to help parents form viable marriages. Couples who marry may need additional support to sustain positive, low conflict relationships. Programs that strengthen marriage would minimize the number of unmarried persons who are divorced or separated; they might also enhance the lives of the children in these married-couple families.

## Pregnancy Resolution

Decisions about how to resolve an unintended nonmarital pregnancy are intensely personal, and most programs take a neutral, counseling approach. However, consideration might be given to any financial, legal and policy barriers to adoption, abortion or marriage that serve to increase the number of nonmarital pregnancies that end in nonmarital births. For example, declines in access and funding for abortion in some communities may have contributed to the declining proportion of nonmarital pregnancies that end in abortion. Also, dramatic declines in adoption have occurred in recent decades, in part reflecting changes in attitudes but possibly reflecting legal and program obstacles to adoption and a lack of counseling that involves all concerned parties in reaching a fully informed and thoughtful decision. In addition, programs may help couples who wish to marry to overcome the obstacles they experience to establishing a viable marriage.

## Child Support

Males as well as females can be the target of all of the programs discussed. Given custody patterns, one program that is more likely to be directed at males is child support enforcement. Not only does stronger enforcement increase the income available to children and make employment a more realistic alternative to welfare for mothers, enforcement may provide an incentive to males to prevent pregnancy or to marry. Research shows that men who do not marry the mothers of their children experience few of the costs associated with childrearing. Increasingly strict and sure enforcement of child support obligations could change the balance of possible costs and benefits for unmarried males. Although some of the fathers of babies born outside of marriage are teenagers, even among teen mothers two-thirds of the fathers are older than age nineteen. Hence, it is realistic to expect the vast majority of these fathers to provide at least some level of support for their children. While establishing paternity and enforcing collection of child support require resources, a gain achieved by sending a message about responsible fatherhood could make more rigorous enforcement increasingly cost-effective. For fathers who are unemployed or have extremely low and erratic earnings, education and training may enable them to provide support for their children.

## Public Policy

Research does not support the widespread contention that teenagers, unmarried women, or mothers already on welfare seek pregnancy in order to obtain welfare benefits or greater welfare benefits. Less research is available on incentives regarding marital decisions. The expansion of welfare eligibility to include two-parent families experiencing unemployment is intended to reduce any potential marriage effect; but it is not known how many unmarried fathers qualify under the work history provisions of the program. Research examining the effects of the expansion of AFDC to unemployed parents (AFDC-UP) seems warranted. Marriage penalties in other programs and in the tax code also merit re-thinking. Suggestions to cut back the Earned Income Tax Credit, which assists married as well as unmarried employed parents, also deserve thoughtful debate. In addition, the implicit marriage penalty in the Earned Income Tax Credit warrants the attention of policy makers. As noted repeatedly, increases in nonmarital childbearing reflect changes in marriage as much or more than changes in fertility behavior, emphasizing the importance of considering how policies and programs affect not just fertility but marital behavior.

## Research and Data Needs

Considerable research has been conducted on adolescent parenthood, but far less is known about fertility and marital behavior among adults. While available research indicates that nonmarital childbearing reflects a broad array of influences, little research has been conducted that incorporates the full array of influences. Moreover, because many of the changes that have occurred have been quite recent, there is a need for research to be equally up-to-date. Descriptive studies that chart the varied patterns of marital and fertility events over time are needed. In addition, contemporary studies which examine marriage, fertility, and economic factors in tandem, are much needed. The differential implications of being never-married as opposed to being separated, widowed, or divorced also need to be examined, and the effects of cohabitation versus legal marriage need more study. Also, the mediating links between family structure and negative child outcomes such as school and behavior problems require further analysis. Moreover, work is needed to understand the effects of media and the sources of recent changes in attitudes and values about marriage and childbearing. Since most research has focussed on teenagers and females, more studies are particularly needed of males and adults.

Surveys that support the tracking of changes in marital and fertility behavior need to be continued, for example, the National Survey of Family Growth. Comparative data for other industrialized countries also needs to be more readily available. In addition, studies that have labor force and economic topics as their central focus need to incorporate measures of marital and fertility behavior as well, e.g., the 1996 Cohort of the National Longitudinal Survey of Youth and the planned extension of the Survey of Income and Program Participation referred to as the Survey of Program Dynamics.

Research is also needed that examines the effect of natural and/or planned experiments not just on labor market and income outcomes, but on marriage and fertility behavior as well. Such studies can examine the effects of policies implemented during the 1980s and should also track the implications of changes currently being implemented. Finally, interventions designed to ameliorate the negative consequences associated with nonmarital childbearing need to be evaluated, e.g., programs that assist absent parents to provide economic and emotional support to their children.

## Conclusions

The dramatic increase in unmarried childbearing in the United States reflects changes in marital behavior as much or more than changes in fertility behavior. Americans are not having more babies; they're having fewer marriages. The economic and social circumstances which make marriage less attractive, less necessary, or less feasible, are one of the root causes of the increase in single-parent families. With young people initiating sexual activity earlier than before, but delaying or rejecting marriage, they face many years at risk of unmarried childbearing. Higher divorce rates and more frequent cohabitation have also increased the size of the population at risk of nonmarital parenthood. Most nonmarital births are unintended, as parents are unable to obtain, do not choose, or fail to use effective contraception on a regular basis.

Today three in ten births is nonmarital. There is no typical unmarried parent, but nonmarital childbearing is higher among those who are less educated and poor. Rates are higher among black women but rising faster among white women. Rates of unmarried childbearing have increased in all groups and in all communities across the country. The majority of teen mothers are unmarried, but the majority of unmarried births are to women in their twenties or older.

Public concern tends to focus on adolescent parents, which is reasonable since half of all **first** nonmarital births occur to teens. Nevertheless, of **all** nonmarital births, seven in ten occur to women age twenty and older. Even among adolescent mothers, two-thirds of the fathers of the babies are twenty or older. Moreover, despite glamourous media portrayals of nonmarital sex and parenthood, most unmarried partners are economically and socially disadvantaged. Research studies indicate that single parenthood poses costs for the taxpayer and difficulties for mothers and for children that range from small to moderate in magnitude, depending on the outcome.

Programs and policies to reduce nonmarital childbearing must reflect the many causes or factors associated with childbearing outside of marriage. Welfare is often asserted to be a primary cause of increases in nonmarital fertility, but research to date indicates that welfare is at most a small part of the explanation. Current welfare and other public policies may affect the likelihood that couples marry, remain together or remarry, however, possibilities that should be studied by researchers and policy makers.

Given evidence that early and nonmarital childbearing are more common among disadvantaged persons, programs designed to improve educational and occupational opportunities -- for men and women -- represent a promising approach to reducing nonmarital fertility. Specifically, the presence of positive opportunities may provide the motivation to delay sex, use contraception, or not have a child outside of marriage.

The role of information about sex, pregnancy and pregnancy prevention, as well as access to contraceptive services also requires recognition. Misinformation about contraception, difficulty in obtaining access to contraception, and an inability to pay for contraception can increase the risk of unintended pregnancy, irrespective of individual motivation.

In sum, as there is no one cause or consequence, there is no one simple strategy certain to reduce the incidence of nonmarital childbearing or to address the negative consequences associated with childbearing outside of marriage. Rather, it must be recognized that marriage and fertility have complex causes, ranging from values, economic and educational opportunities, family problems, role models, peer and media influences, the availability of contraceptive services and information, and public policies.

# The Demography of Out-of-Wedlock Childbearing

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This document is the result of the cooperative work of many people besides those listed as authors, including Joyce Abma, Jeff Evans, Mary Anne Freedman, Gesine Hearn, Robert Heuser, Tanya Koropeckyj-Cox, Jennifer Madans, T. J. Mathews, Kristin Moore, Phil Morgan, Susan Newcomer, Janel Pearlman, Linda Peterson, and Herb Smith. Sarah Hinkle and Dorothy Day were consulted regarding covers, page layout, and chart design. Donna Wright and Chris Taylor provided essential expertise and support in the development of graphics, tables, and report layout. Larry Bumpass, Neil Bennett, Ed Laumann, Allan Parnell, Ronald Rindfuss, and Arland Thornton provided helpful comments on earlier drafts of the manuscript.

## The Demography of Out-of-Wedlock Childbearing

### Introduction

The dramatic increases in out-of-wedlock childbearing observed in the United States over recent decades are the result of changes in demographic behavior that have affected all segments of our population. The size of the unmarried population has increased as a consequence of the high birth rates during the late 1940s through the early 1960s, and the unprecedented postponement of marriage by those in the "baby-boom" generation. Dramatic changes in sexual activity, contraceptive use, and abortion have also contributed to the increases in out-of-wedlock childbearing. This report presents information about the trends in nonmarital (out-of-wedlock) childbearing and the underlying trends in marriage and fertility that have combined to drive up nonmarital or out-of-wedlock births[1]. It examines variation in the level of out-of-wedlock childbearing from one population group to another, and differences among groups in how rapidly out-of-wedlock births have increased. It provides information about how the behavior of unmarried people has changed to increase the risk of conceiving or fathering a child outside of marriage, and to increase the likelihood of the child beginning life in a single-parent family. It examines whether nonmarital childbearing is a one-time or a repeated event for those who begin their childbearing careers as unmarried mothers. Finally, it puts the experience in the United States in context, by presenting data on out-of-wedlock childbearing in other industrialized countries.

Although prepared before the release of the 1993 vital statistics data, this report has been updated to include those data wherever possible. Data from most other sources are not collected annually; thus the statistics presented in this report vary in recency.

Highlights include:

- Out-of-wedlock childbearing has been increasing in the United States for over half a century. The rate of nonmarital birth in 1993 was more than six times the rate in 1940, and the proportion of births that occur outside of marriage has risen from 4 to 31 percent. By most measures, the increase has accelerated sharply over the past 15 years. Most recently, however, the pace of increase has slowed, especially for the nonmarital birth rate, which has remained essentially unchanged for the three years 1991-93.

- Out-of-wedlock childbearing has increased among all women of reproductive age and among all racial and ethnic groups in our population. Most nonmarital or out-of-wedlock births occur to women in their twenties, and less than one in three occur to teenagers. Nonetheless, 72 percent of births to teenagers are out-of-wedlock. Rates of nonmarital birth historically have been higher among black than white women, but the differences have narrowed over time, and most out-of-wedlock births currently occur to white women.

- Delayed marriage, increasing nonmarriage, and high rates of divorce have played a critical role in driving the increase in out-of-wedlock childbearing since the 1960s. Among births to black mothers, the higher proportion outside of marriage has been primarily attributable to sharp declines in the proportion of childbearing-age women who are married; among births to white mothers, the increase has resulted from increased birth rates among unmarried women as well as declines in marriage.

- A substantial proportion of out-of-wedlock births -- over one quarter of those between 1970 and 1984 -- occur to cohabiting couples. Children born to cohabiting couples begin life in a two-parent family, but their chances of experiencing the breakup of their parents' union is higher than for children born within a legal marriage.

- Changes in the sexual behavior of unmarried people have contributed to increasing rates of out-of-wedlock childbearing. Sexual intercourse has occurred at an increasingly earlier age for both men and women, and the proportion postponing sexual initiation until marriage has declined. Despite some improvement in contraceptive practice during the 1980s, about one in ten unmarried women aged 15-44 still become pregnant each year. The vast majority of these pregnancies are unintended, and, in 1991, nearly half ended in induced abortion.

- Changes in the behavior of unmarried women who become pregnant have also contributed to increasing nonmarital or out-of-wedlock childbearing. The proportion of unmarried pregnant women who choose abortion has declined substantially over the past decade, from 60 to 46 percent. Among those unmarried women who carry their pregnancies to term, the proportion who marry before their child's birth has declined continuously since the early 1960s.

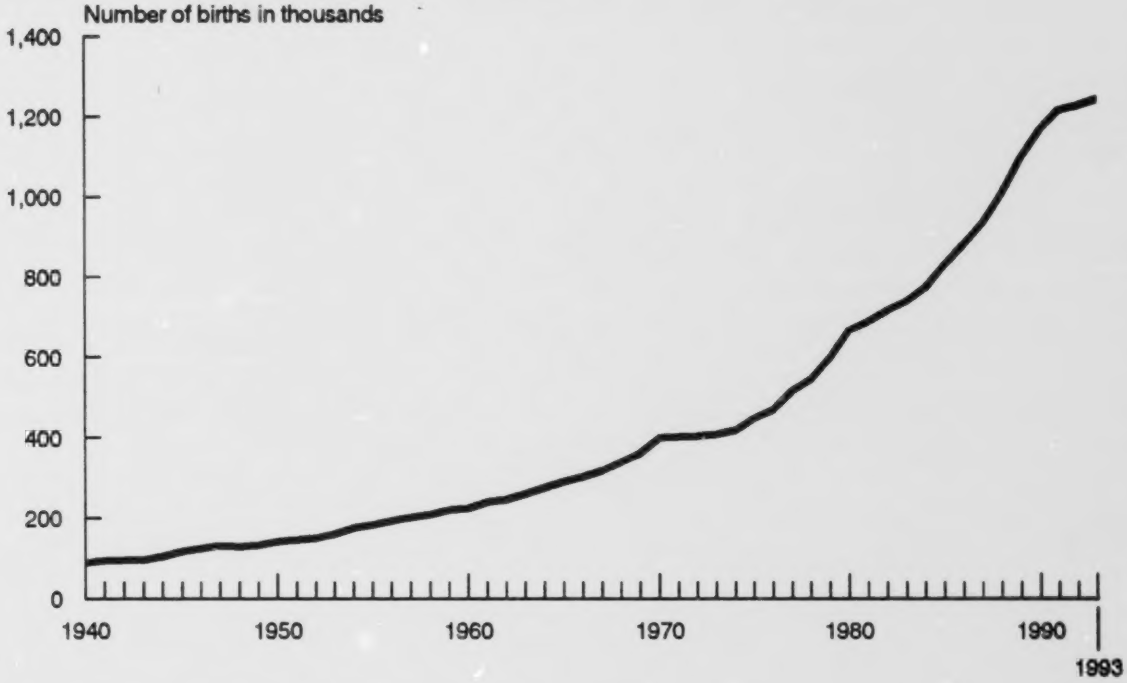
- Although many unmarried mothers marry soon after the birth of their child (40 percent within five years), being an unmarried mother may actually reduce the chances of subsequent marriage.

- Among the four million never-married mothers in 1992, nearly half (48 percent) had additional children. However, only one-fifth had more than two children.

- Increasing out-of-wedlock childbearing is a fact of life in most industrialized nations today. Sweden and Denmark have a higher proportion of babies born outside of marriage than the United States; Canada, Great Britain and France have similar proportions; and Japan and the Netherlands have a lower proportion. In all countries but Japan, the proportion of babies born outside of marriage has been increasing.

## I. Overall Trends

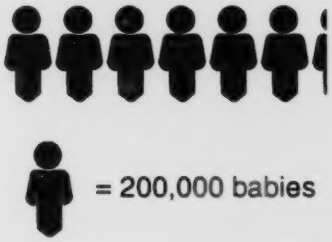
**Figure I-1. Number of births to unmarried women: United States, 1940-93**



Sources: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-1.

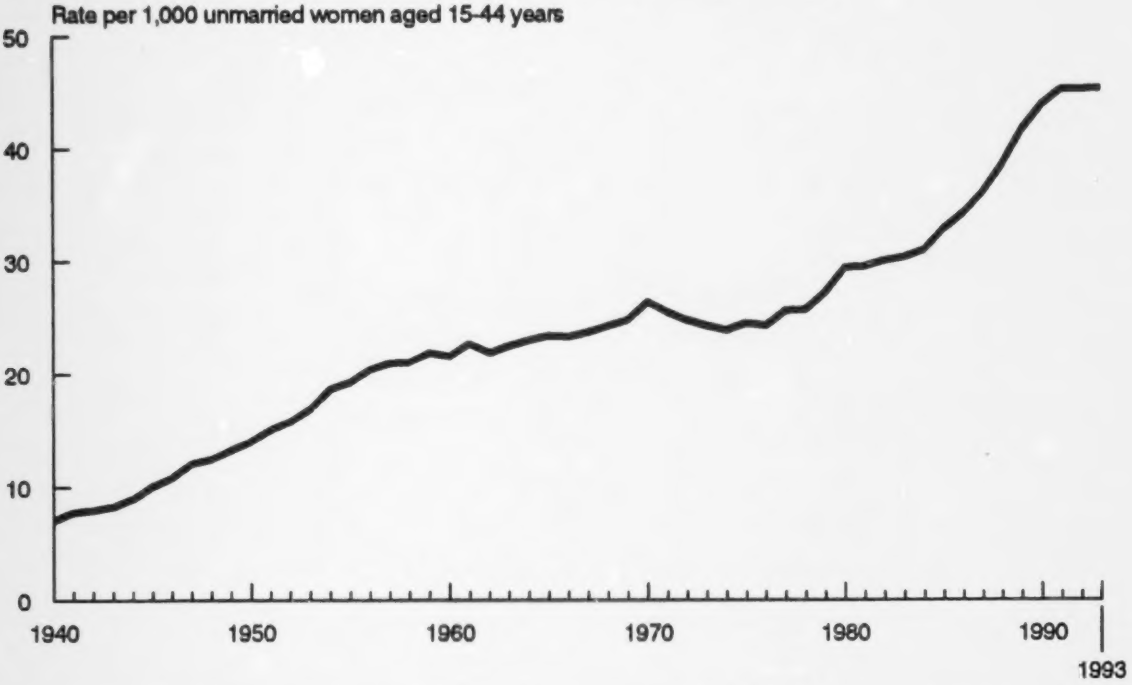
Between 1940 and 1993 the **number** of nonmarital births[2] occurring each year in the United States increased from 89,500 to 1,240,172 -- nearly fourteen times the 1940 total. Growth in the number of nonmarital births has slowed during the last few years. During the period 1980-90, the number grew an average of about 6% each year; during the period 1990-93, it grew by only about 2% each year. Information on the **number** of nonmarital births tells us how many children are beginning their lives with a mother who is not legally married. To the extent that such children are more likely to depend on public programs, this number is useful for tracking and forecasting demand for social, financial and health services for babies and their mothers.

The number of nonmarital births is the number of babies born to unmarried women in a given year.



In 1993, 1,240,172 babies were born to unmarried mothers.

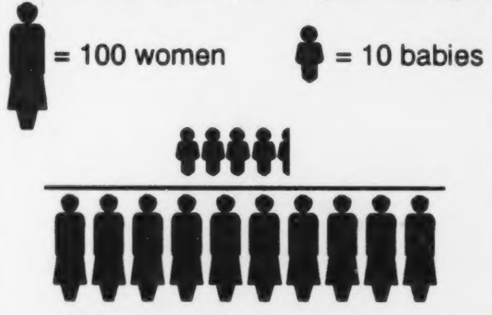
**Figure I-2. Birth rate for unmarried women: United States, 1940-93**



Sources: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-2.

The **rate** of nonmarital birth increased from 7.1 births per 1000 women in 1940 to 45.3 in 1993. After declining in the early 1970s, the rate increased dramatically during the late 1970s and 1980s. Since 1991, it has remained essentially stable. The nonmarital birth **rate** measures the likelihood that an unmarried woman will give birth in a given year[3]. As a measure of the fertility behavior of unmarried women, it gives information about one reason -- but not the only reason -- why the number of nonmarital births might change. Comparing rates across time and different population groups provides information about which women are most at risk of nonmarital birth, and sets the stage for investigating the reasons why.

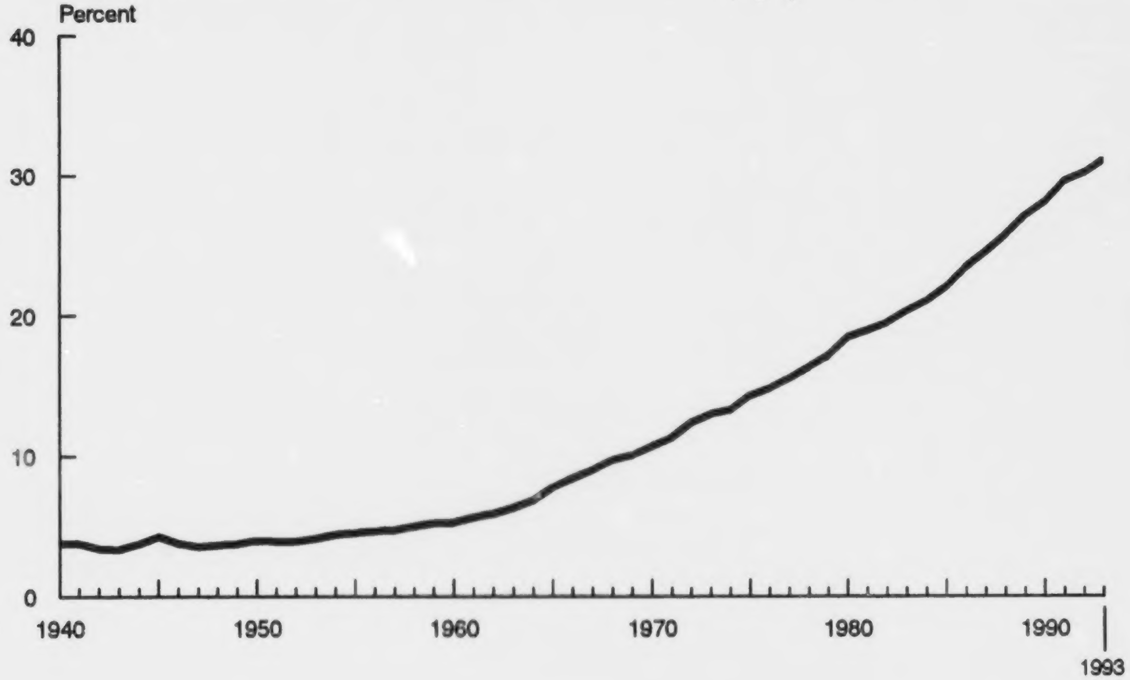
The nonmarital birth rate is the number of nonmarital births per 1,000 unmarried women 15-44 years of age.



In 1993, the nonmarital birth rate was 45.3 per 1,000 unmarried women 15-44 years of age.

## I. Overall Trends

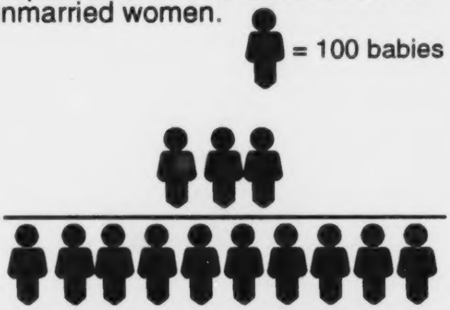
**Figure I-3. Proportion of births to unmarried women: United States, 1940-93.**



Source: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. National Center for Health Statistics. Vital Statistics of the United States, 1993, Volume I, Natality. In preparation. See Appendix table I-3.

The nonmarital birth **ratio** measures the proportion of all births that occur to unmarried women. Between 1940 and 1993, this ratio increased from 38 to 310 per 1000 births -- that is, from less than 4% to 31% of all births. The nonmarital birth **ratio** is useful for understanding the proportion of all children who begin life with unmarried parents, and the extent to which children born in a given year may be affected by any disadvantage - economic, social, emotional or health - associated with being born outside of marriage. The measure is also used to assess trends in nonmarital birth when the information needed to calculate rates is not available.

The nonmarital birth ratio is the number of births to unmarried women per 1,000 births to all women or the proportion of all births that occur to unmarried women.

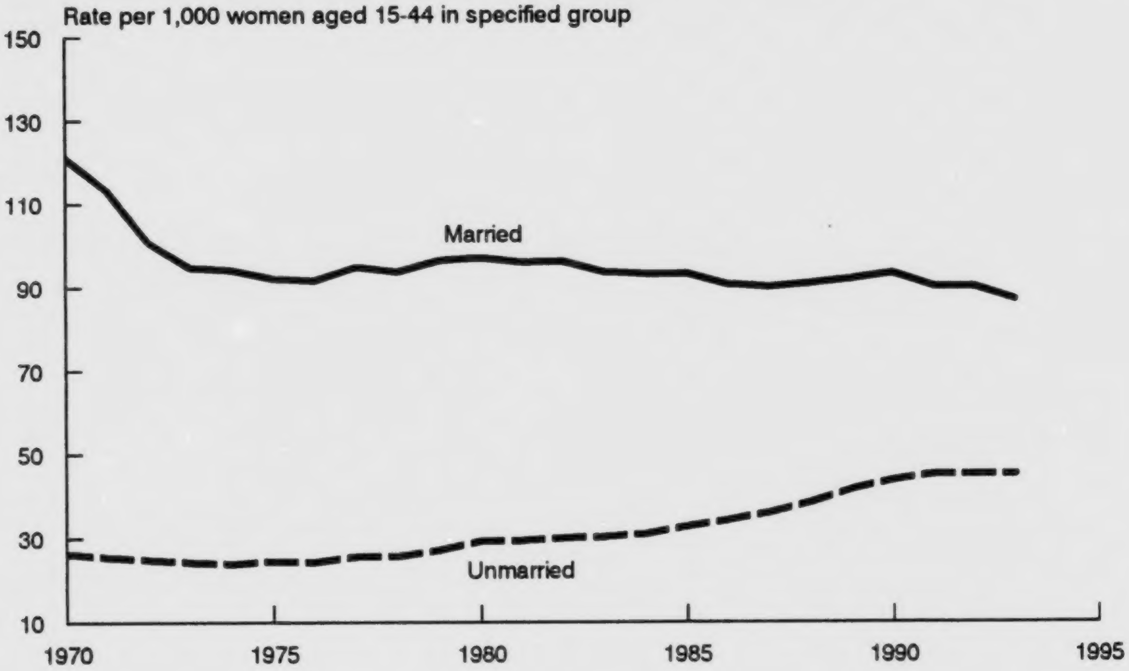


In 1993, for every 1,000 births, 310 were born to an unmarried mother.

Figure I-3. Proportion of births to unmarried women: United States, 1940-93

However, the ratio is not ideal for this purpose, because it is affected not only by the rate of nonmarital birth, but by other factors such as the age distribution of women, the proportion of women who are married, and the birth rates of married women.

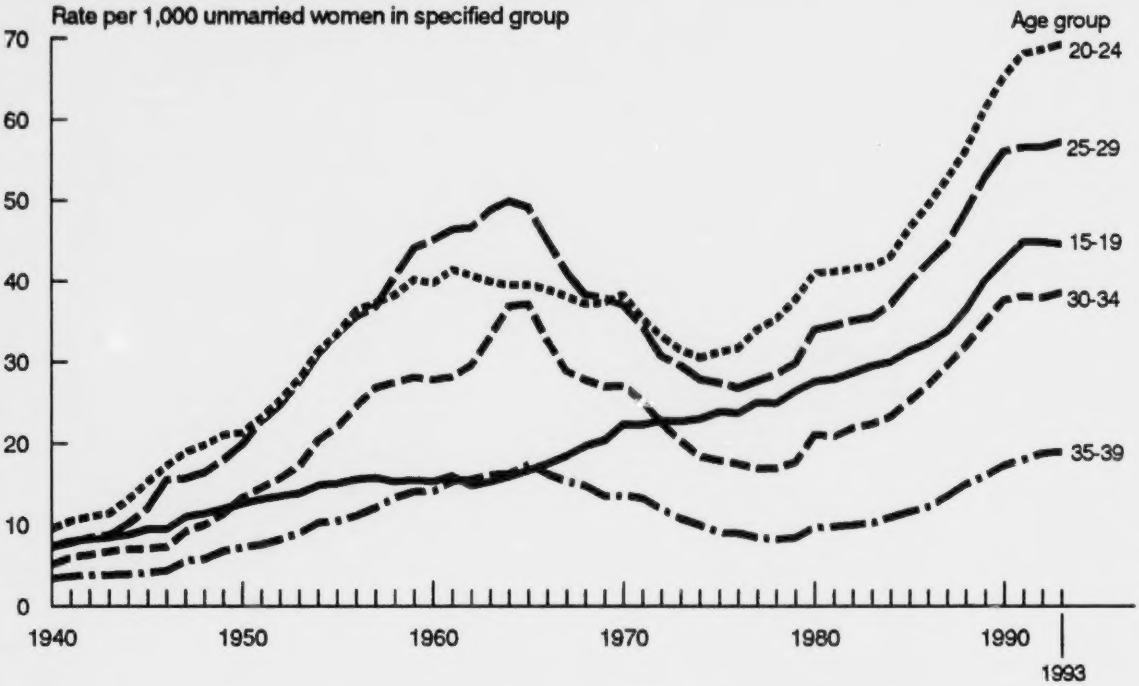
**Figure I-4. Birth rates by marital status of mother: United States, 1970-93**



Source: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. National Center for Health Statistics. Vital Statistics of the U.S., 1993. Volume I, Natality. In preparation. See Appendix table I-2.

Comparing trends in the birth rates for married and unmarried women helps to illustrate why the nonmarital birth ratio is an imperfect indicator of trends in nonmarital birth rates. During 1991-93, nonmarital birth rates remained unchanged but the nonmarital birth ratio increased from 295 to 310 per 1000 births. An important reason for this was the continuing decline in marital birth rates, from 89.9 per 1000 women in 1991 to 86.8 in 1993. Section III of this report provides a detailed analysis of the factors that have contributed to change in the nonmarital birth ratio since 1960. However measured, the increase in nonmarital births in the United States has been underway for over half a century. Although both the number and ratio of nonmarital births increased slowly between 1940 and 1960, nionmarital birth rates tripled during that period, from 7.1 in 1940 to 21.6. This was a period characterized by increasing fertility for **all** women and rising divorce rates. Beginning in the 1970s, the number, rate, and ratio of nonmarital births all increased dramatically for women in the United States. The pace has slowed considerably, however, since 1991.

**Figure II-1. Birth rates for unmarried women by age: United States, 1940-93**

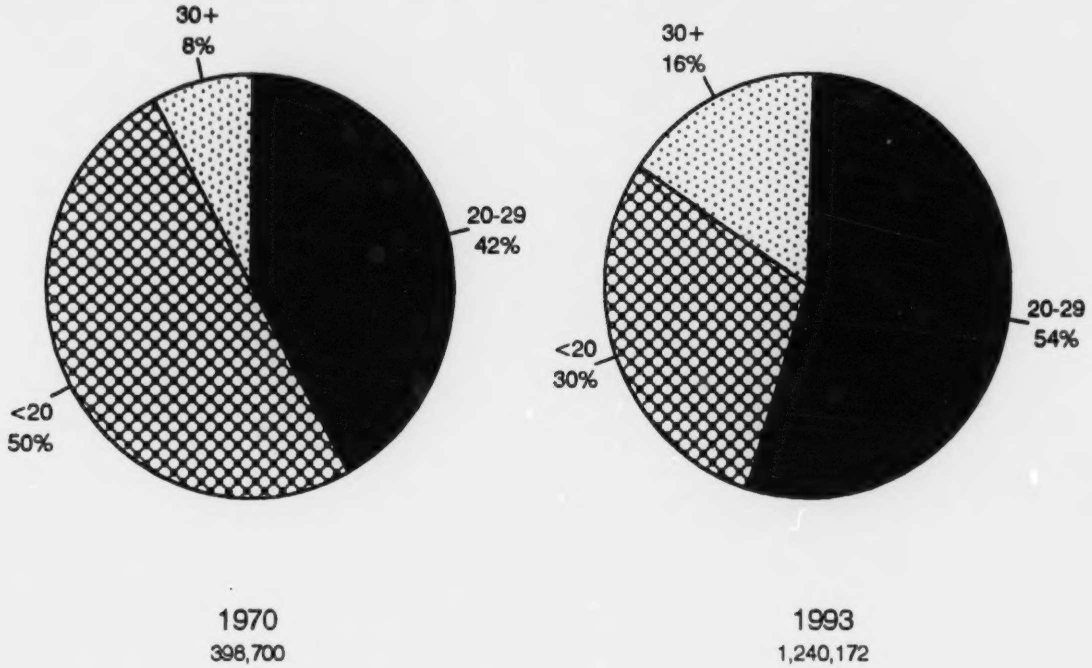


Sources: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-2.

Unmarried women in their twenties are most likely to give birth, and those over age 35 are least likely. In 1993, unmarried women aged 20-24 gave birth at a rate of 69.2 per 1000, more than three times the rate for unmarried women aged 35-39, 19.0 per 1000. Women in their late teens (aged 18-19) give birth at nearly the same rate (66.9 per 1000) as women in their early twenties, but school-age teens (aged 15-17) had a much lower rate of nonmarital birth (30.6 per 1000).

For most age groups, nonmarital birth rates have not increased steadily over time. Rates for all age groups over 20 increased between 1940 and the mid-1960s, decreased between the mid-1960s and mid-1970s (most likely because of increased access to legal abortion), and have increased since that time.[4] Nonmarital birth rates for teenagers (15-19 years) have followed a different pattern, increasing fairly gradually, but steadily, since 1940. All age groups experienced sharp increases in nonmarital birth rates during the late 1980s. Rates increased very slightly or declined between 1991 and 1993.

**Figure II-2. Distribution of nonmarital births by age: United States, 1970 and 1993**

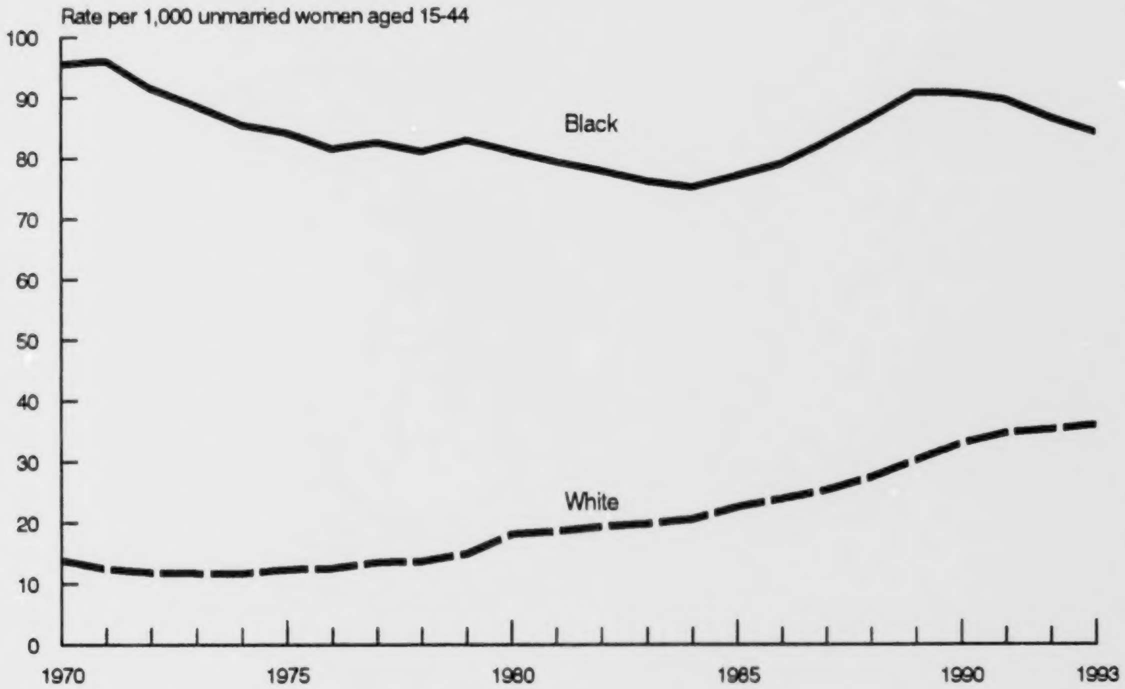


Sources: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-1.

Less than one in three nonmarital births occur to teenaged women; over half occur to women in their twenties. This picture has changed since 1970, when half of nonmarital births occurred to teens. The greater proportion of nonmarital births now occurring to women in their twenties reflects the aging of the unmarried population: because women now wait until older ages to marry, if they marry at all, the average age of the population at risk of having a nonmarital birth has increased.

The majority of **fathers** of babies born outside of marriage are also in their twenties when the birth occurs. By using data from a 1988 study to complement incomplete Vital Statistics information on fathers, researchers estimated that men aged 20-29 accounted for 62% of nonmarital births. However, unmarried fathers were older, on average, than unmarried mothers. Only 15% of unmarried fathers were under age 20 - about half the proportion among mothers. Twenty-four percent of unmarried fathers, but only 14% of unmarried mothers were aged 30 or above in 1988.[5]

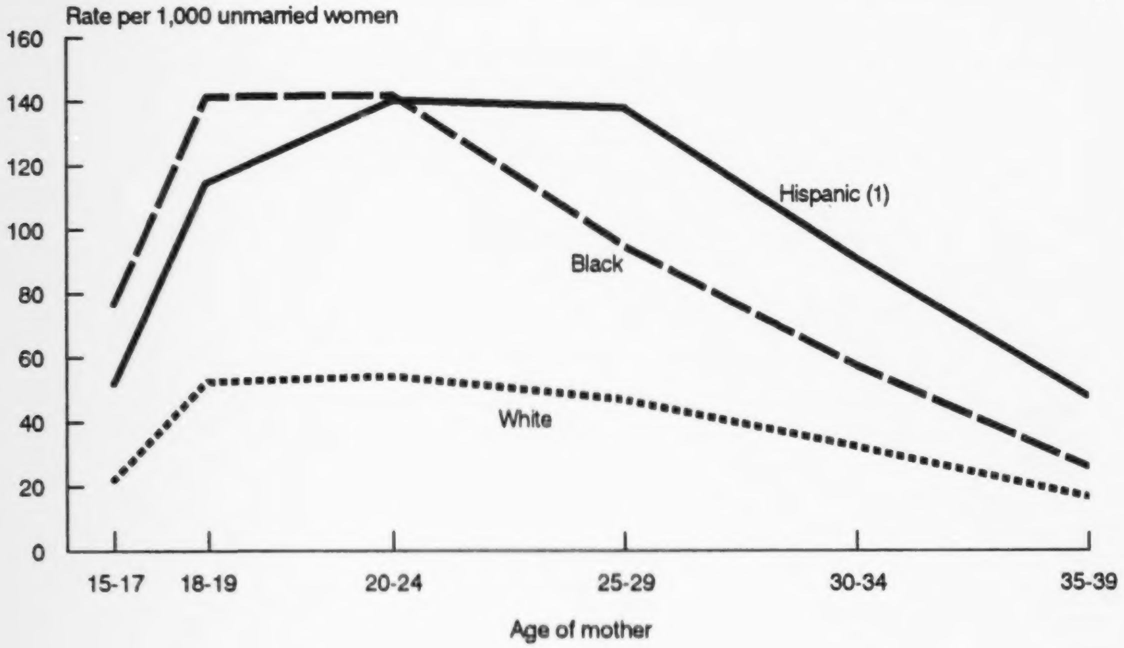
Figure II-3. Birth rates for unmarried women by race: United States, 1970-93



Sources: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-2.

The level and trend of nonmarital childbearing varies widely among different racial and ethnic populations within the United States. Rates of nonmarital birth historically have been higher among black than white women. However, the differences have narrowed over time as nonmarital birth rates for white women have increased more steadily than those for black women. In 1970, this rate for black women (95.5 per 1000) was nearly 7 times as high as the rate for white women (13.9). By 1993, the nonmarital birth rate for black women was 2.3 times the rate for white women (84.0 compared with 35.9 per 1000).

**Figure II-4. Birth rates for unmarried women by age, race, and Hispanic origin: United States, 1993**

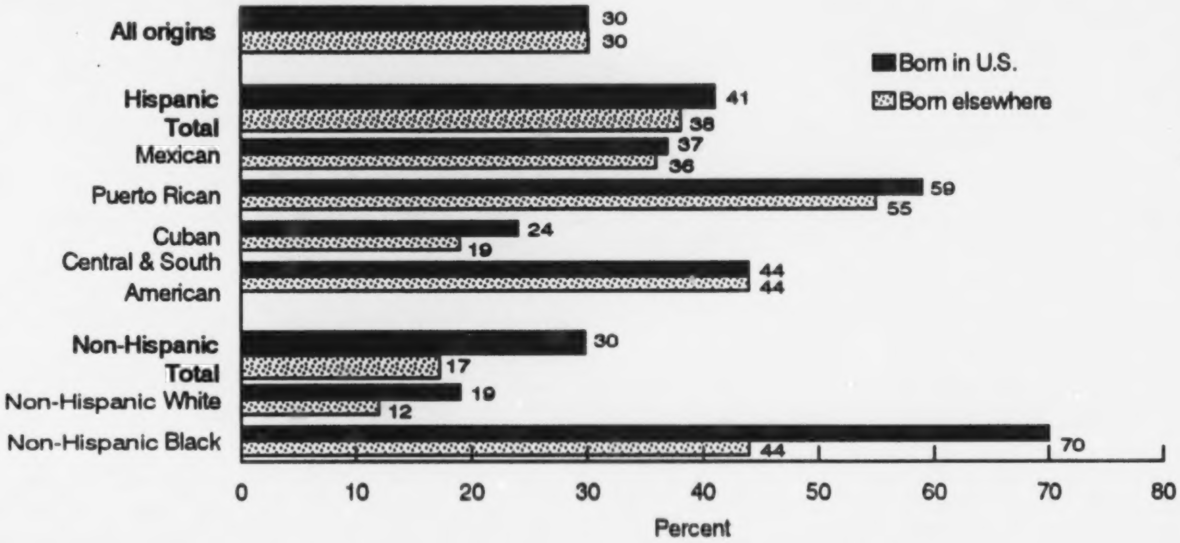


Sources: Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-2 and II-1.

Overall, the nonmarital birth rate for Hispanic women, 95.2 per 1,000 in 1993, is higher than those for white or black women. This reflects the higher rates for Hispanic women aged 25 and older compared with white and black women (see Appendix Table II-1).

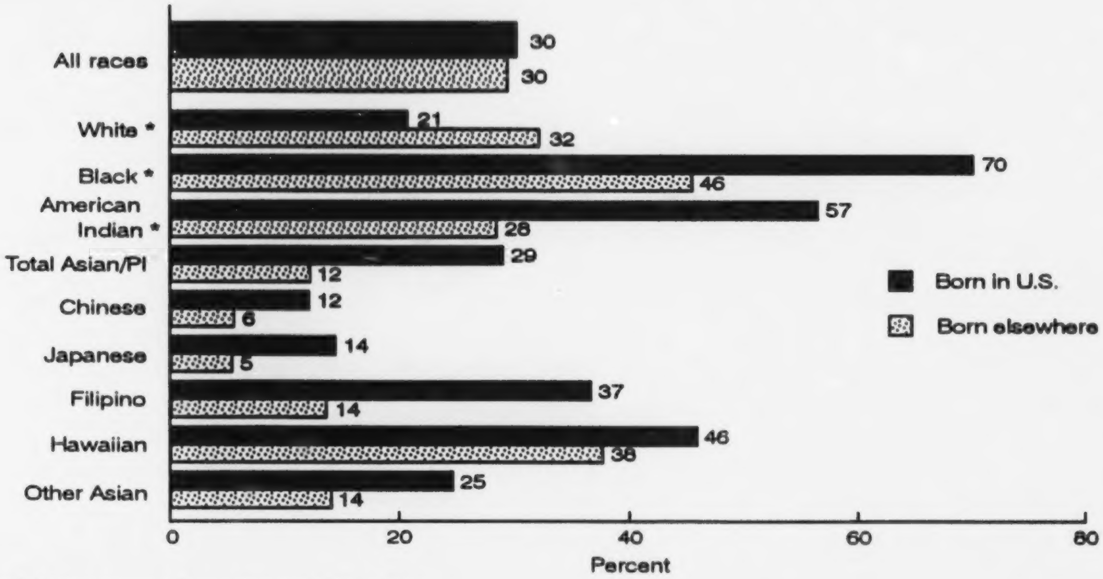
The age pattern of nonmarital childbearing varies among groups. Nonmarital birth rates for black women are highest during the late teens and early twenties, and decline sharply at older ages. Nonmarital birth rates for Hispanic women are highest during the early and late twenties, and remain high at older ages. Nonmarital birth rates for white women peak in the late teens and early twenties, but decline more gradually in subsequent ages compared to those for other groups.

**Figure II-5. Percent of births to unmarried women by mother's place of birth, by Hispanic origin: United States, 1992**



Source: National Center for Health Statistics. Vital Statistics of the United States, 1992, Volume I, Natality. In preparation.

**Figure II-6. Percent of births to unmarried women by mother's place of birth, by race or national origin: United States, 1992**



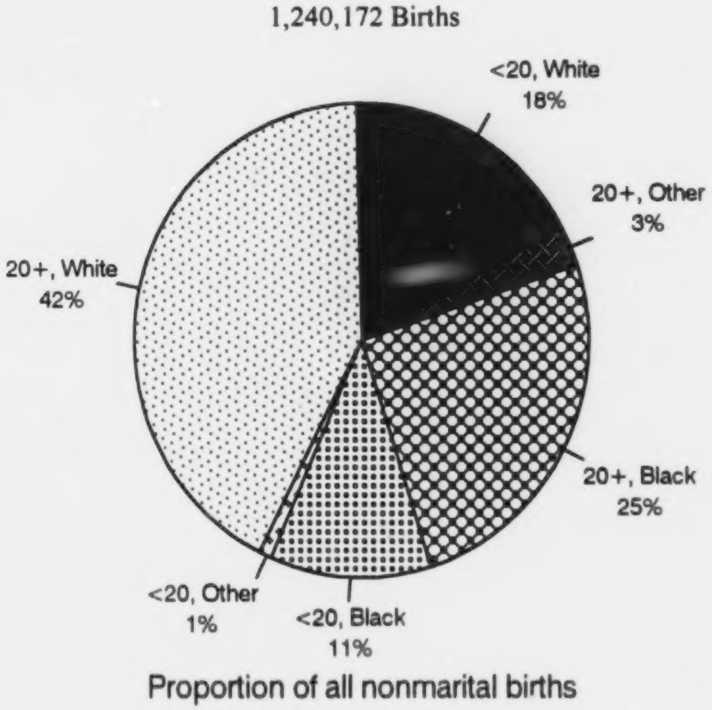
*Includes births to women of Hispanic and non-Hispanic origin.
Source: National Center for Health Statistics. Vital Statistics of the United States, 1992, Volume I, Natality. In preparation.

**Figures II-5 and II-6:**

The proportion of births to unmarried mothers (the nonmarital birth ratio) also varies among different racial and ethnic groups in the United States, and by mother's place of birth. For example, among births to women born in the 50 States and the District of Columbia in 1992, the percent that occurred to unmarried mothers was 12% among Chinese women, 37% among Filipino women, 19% among non-Hispanic white women, 37% among Mexican women, 59% among Puerto Rican women, and 70% among non-Hispanic black women. These differences reflect differences among racial and ethnic populations in age distribution, education, place of residence, and marriage patterns as well as differences in rates of marital and nonmarital birth.

The impact of immigration on trends in nonmarital childbearing is not clearly understood. Nonmarital birth ratios are high in some, but by no means all, groups whose numbers have increased through immigration over recent decades. For most ethnic groups, the proportion of nonmarital births is lower for mothers who are first generation immigrants (born outside the United States) than for mothers born in the United States of the same race or ethnicity.

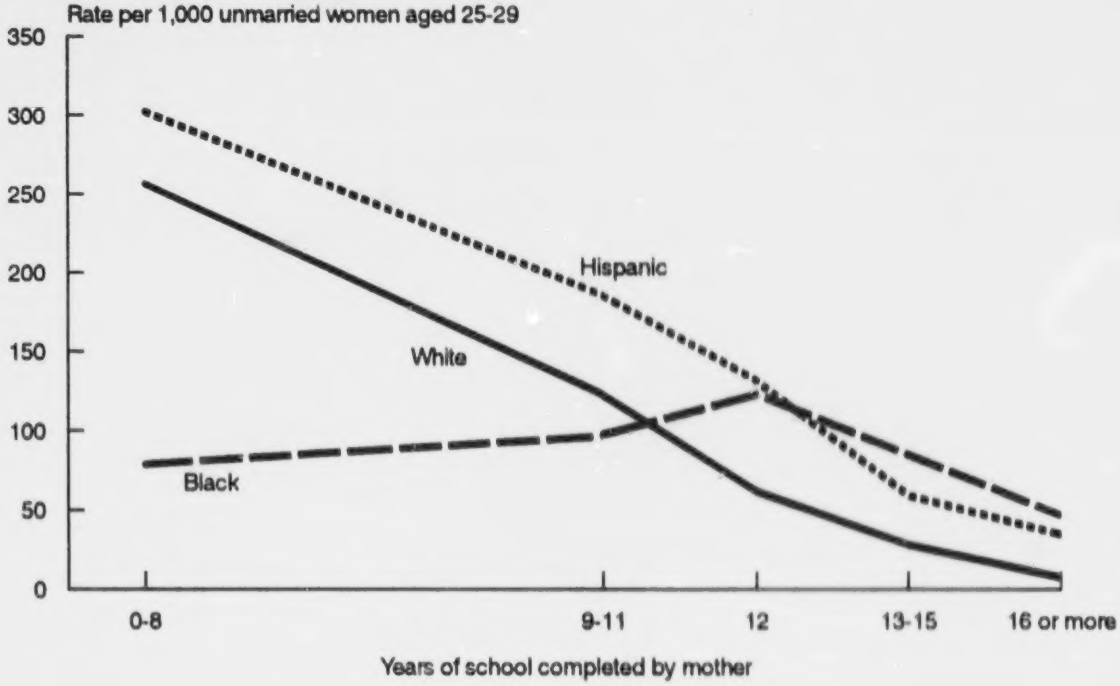
**Figure II-7. Distribution of nonmarital births by age and race: United States, 1993**



Source: Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995. See Appendix table I-1.

In 1993, the majority of nonmarital births (60%) occurred to white women, and most of these (42% of all nonmarital births) occurred to white women aged 20 or older. Less than 2 in 5 (36%) occurred to black women; less than one in 9 (11%) to black teens. Only 4% of all nonmarital births were to women of other races. As recently as 1980, white women accounted for 48% of all nonmarital births and only 29% of the total were to white women aged 20 and older. The change in distribution reflects the much greater increase in the nonmarital birth rate for white than for black women, especially among women aged 20 and older.

**Figure II-8. Birth rates for unmarried women aged 25-29 by educational attainment, race and Hispanic origin: United States, 1992**



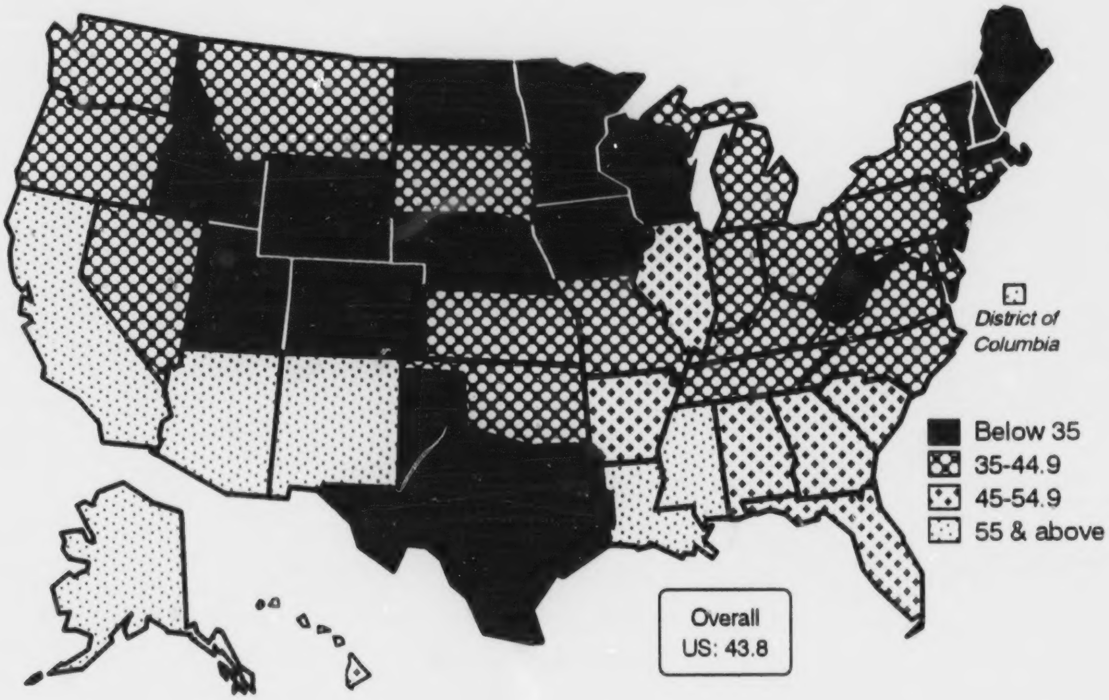
Source: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995. See Appendix table II-3.

Nonmarital birth rates tend to be highest among women who are least educated, and lowest among those who have completed college. Rates of nonmarital birth are especially high among Hispanic women with fewer than 9 years of schooling. Among black women, rates of nonmarital birth are highest among high school graduates. In all groups, rates are substantially lower for women who have attended college (13 years or more), compared to those with high school diplomas.

These comparisons are limited to an age group (25-29) in which most women have completed their schooling, but the pattern of differences discussed above is evident at all ages. In each age group between 20 and 44 years, unmarried women with less than a high school diploma are at least three times as likely to have a baby as unmarried women with some college. (See Appendix Table II-3).

Educational differences account for some, but not all, of the differences in nonmarital childbearing among different racial and ethnic groups. Even among college graduates, rates of nonmarital birth are lower for white than for black and Hispanic women.

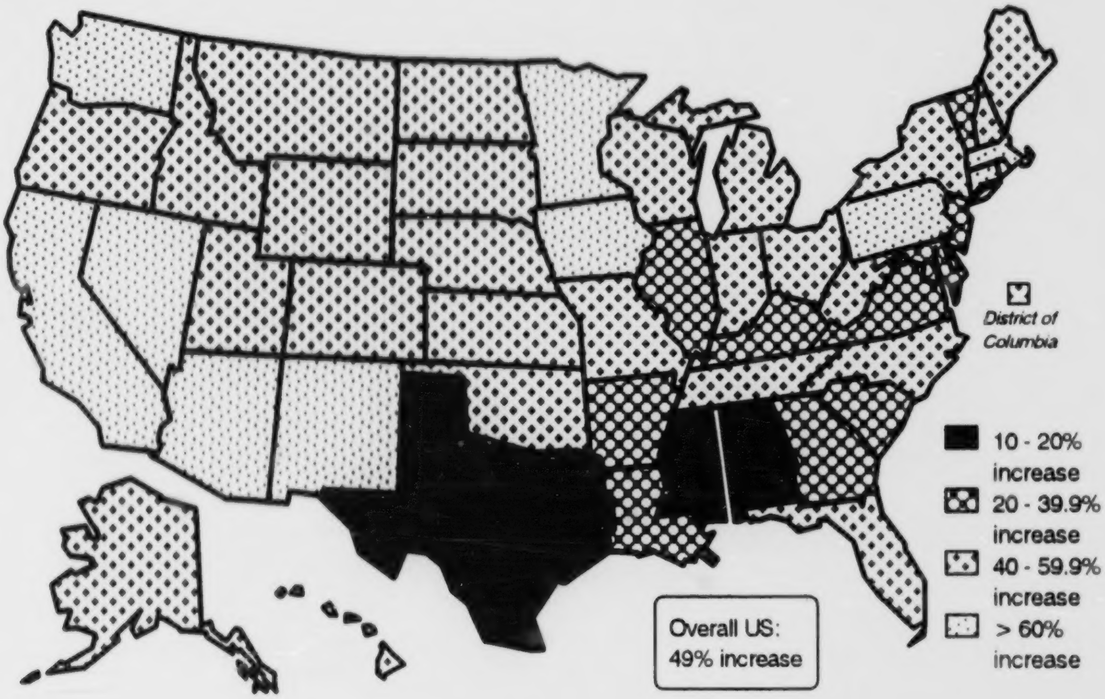
**Figure II-9. Birth rates per 1,000 unmarried women aged 15-44 by state: United States, 1990**



Source: Clarke SC and Ventura SJ. Birth and Fertility Rates for States: United States, 1990. National Center for Health Statistics. Vital and Health Statistics. Series 21, No. 52. 1994

Birth rates for unmarried women vary widely by state. Much of the variation is associated with variations in the composition of state populations in characteristics such as age, race and ethnicity, socioeconomic status, and urban or rural residence. States with the highest rates in 1990 were mainly concentrated in the south and southwest regions of the country.

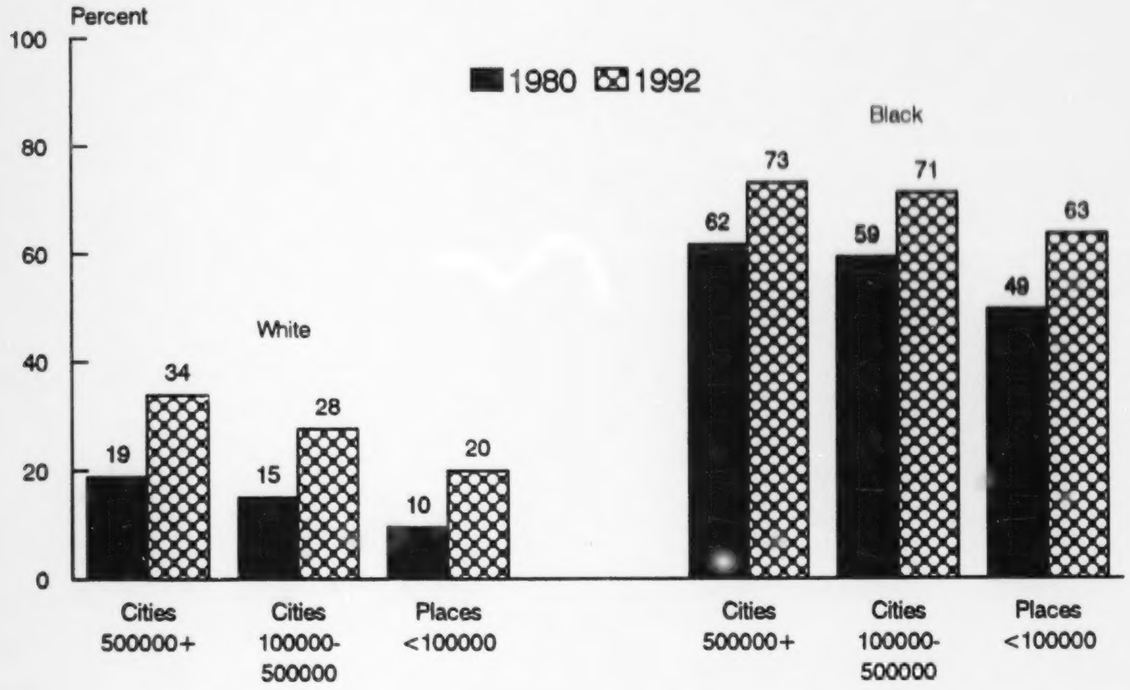
**Figure II-10. Percent change in birth rates for unmarried women from 1980 to 1990 by state**



Sources: Clarke SC and Ventura, SJ. Birth and Fertility Rates for States: United States, 1990. National Center for Health Statistics. Vital and Health Statistics. Series 21, No. 52. 1994. Taffel, SM. Birth and Fertility Rates for States: United States, 1980. National Center for Health Statistics. Vital and Health Statistics. Series 21, No. 42. 1984..

Nonmarital birth rates increased in all states between 1980 and 1990. In all but three states, rates increased by 20% or more. Rates increased at least 40% in 30 states and the District of Columbia. States in the southwest and a few northern states experienced the greatest increases in nonmarital birth rates.

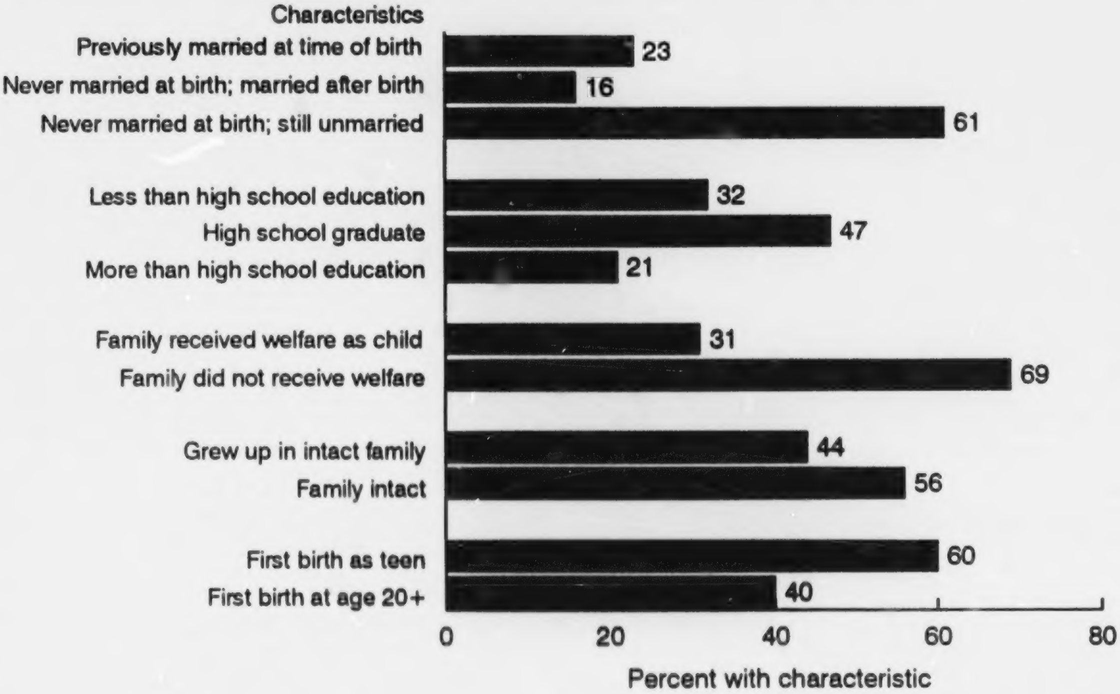
**Figure II-11. Percent of births to unmarried women by population-size of residence and race: United States, 1980 and 1992**



Source: National Center for Health Statistics. Vital Statistics of the United States, Volume 1, Natality. Issues for 1980 and 1992. See Appendix II-6.

Although nonmarital childbearing is commonly perceived as an urban phenomenon, a substantial proportion of births occurs outside of marriage in places of all sizes. Nonmarital birth ratios are higher in large cities than in small towns. But the proportion of births outside of marriage has increased in all sizes of places since 1980. For example, among births to white women living in places of less than 100,000 population, the percent occurring outside of marriage doubled between 1980 and 1992, from 10 to 20%.

**Figure II-12. Characteristics of women who had a nonmarital birth, 1983-88**



Source: Hearn GV, J Evans, KA Moore, and BW Sugland. The Many Faces of Nonmarital Childbearing. 1995. Child Trends, Inc. Working Paper.

When they hear the phrase "unmarried parent", many Americans picture a teenage girl who has never been married. However, there is no typical unmarried parent. We have seen that less than one in three nonmarital births occurs to women in their teens, and that most occur to white women. Data from a national survey tell us more about the varied characteristics of women who had a nonmarital birth during 1983-88. About one quarter (23%) of these women had already been married, then separated, divorced or widowed, by the time they had their nonmarital birth, and 16% had given birth before marrying but then married between the time of the birth and their interview in 1988. While 32% of these mothers had less than a high school education when they were interviewed in 1988, 47% had graduated high school and 21% had received at least some college education. Thirty-one percent had grown up in families that received public assistance at some point during their childhood; but 69% had not. Forty-four percent lived with both their mother and their father until they were 16 years old, while 56% lived in a single-parent household (or in some other arrangement) at some time during their childhood. Sixty percent of the unmarried mothers had begun their childbearing as teenagers, and 29% in their early 20s.

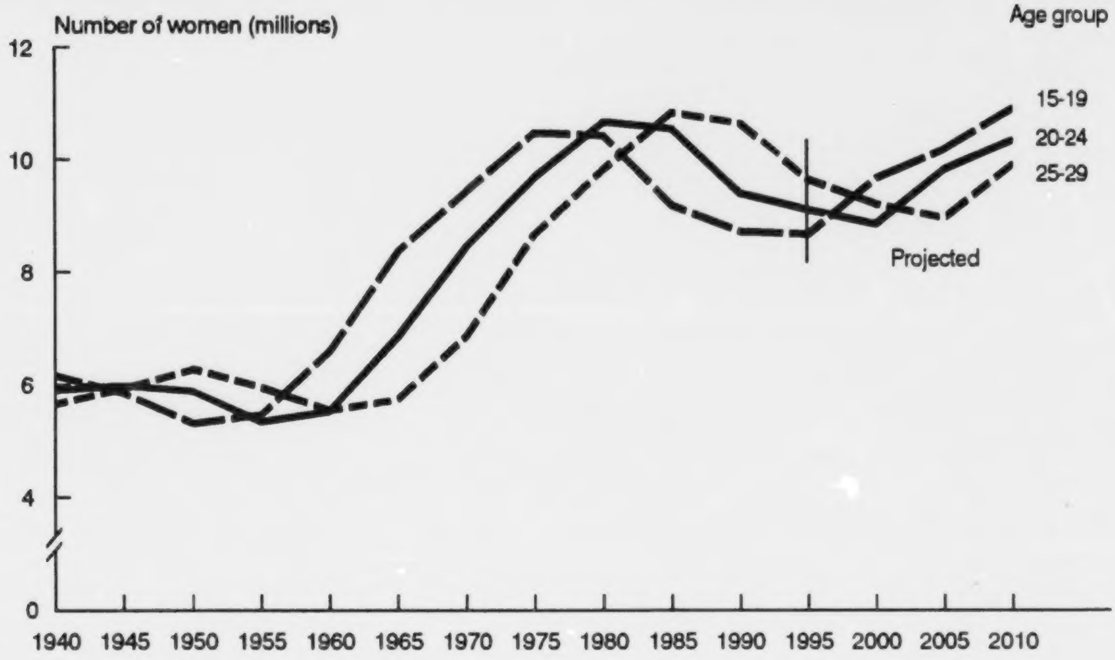
The same national survey gives us information

**Figure II-12. Characteristics of women who had a nonmarital birth, 1983-88**

about men who became unmarried fathers during 1983-88. Because some men did not report (and perhaps did not know about) their out-of-wedlock children, the data are incomplete. The results show that men who did report having a child outside of marriage are older and more economically secure, on average, than women who gave birth outside of marriage during the same period.

# III. What's Driving the Trends: Factors Affecting Change in Nonmarital Births

**Figure III-1. Number of women by age: United States, 1940-92, and projections to 2010**



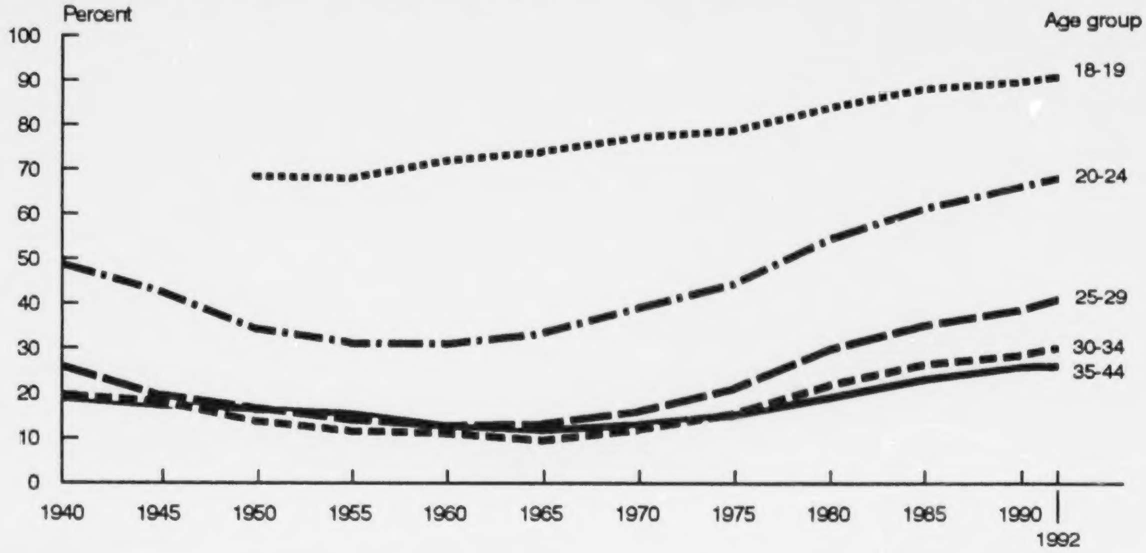
Source: Compiled from data published by U.S. Bureau of the Census. See Appendix table III-1.

Increases in the number and ratio of nonmarital births can be affected by several demographic factors: the size of the population "at risk" of giving birth, the proportion of individuals who are unmarried, and birth rates among both married and unmarried women[6]. This chart and those which follow show trends in these underlying demographic factors, and examine the contributions of each to the increase in the proportion of births that occur outside of marriage.

The number of women in their childbearing years is an important factor influencing the number of births that occur in a given year. The number of women in their late teens and twenties increased sharply during the 1960s and 1970s as the large cohorts born in the "baby boom" years of the 1950s and early 1960s came of age. Numbers of women in these age groups began to decline again in the 1980s, but will rise again soon. The number of teenaged women (aged 15-19) will increase by 11% between 1995 and 2000, and by 26% by the year 2010.

## III. What's Driving the Trends: Factors Affecting Change in Nonmarital Births

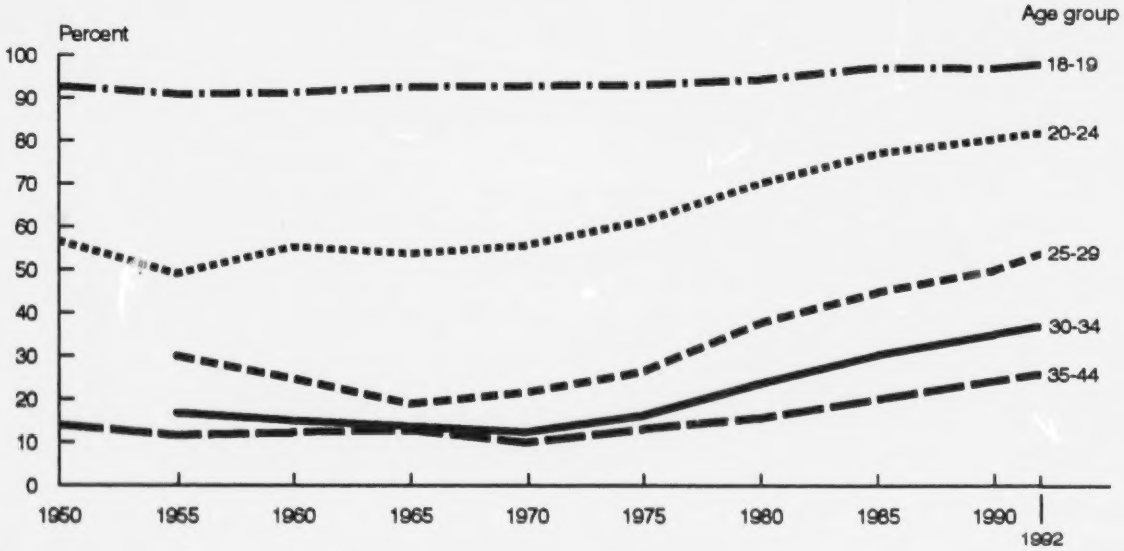
**Figure III-2. Percent unmarried*, female population by age: United States, 1940-92**



*Includes never married, widowed, and divorced women.

Source: Compiled from data published by U.S. Bureau of the Census 1940-92. See Appendix table III-1.

**Figure III-3. Percent unmarried*, male population by age: United States, 1950-92**



*Includes never married, widowed, and divorced men.

Source: Compiled from data published by US Bureau of the Census 1950-92. See Appendix table III-2.

## III. What's Driving the Trends: Factors Affecting Change in Nonmarital Births

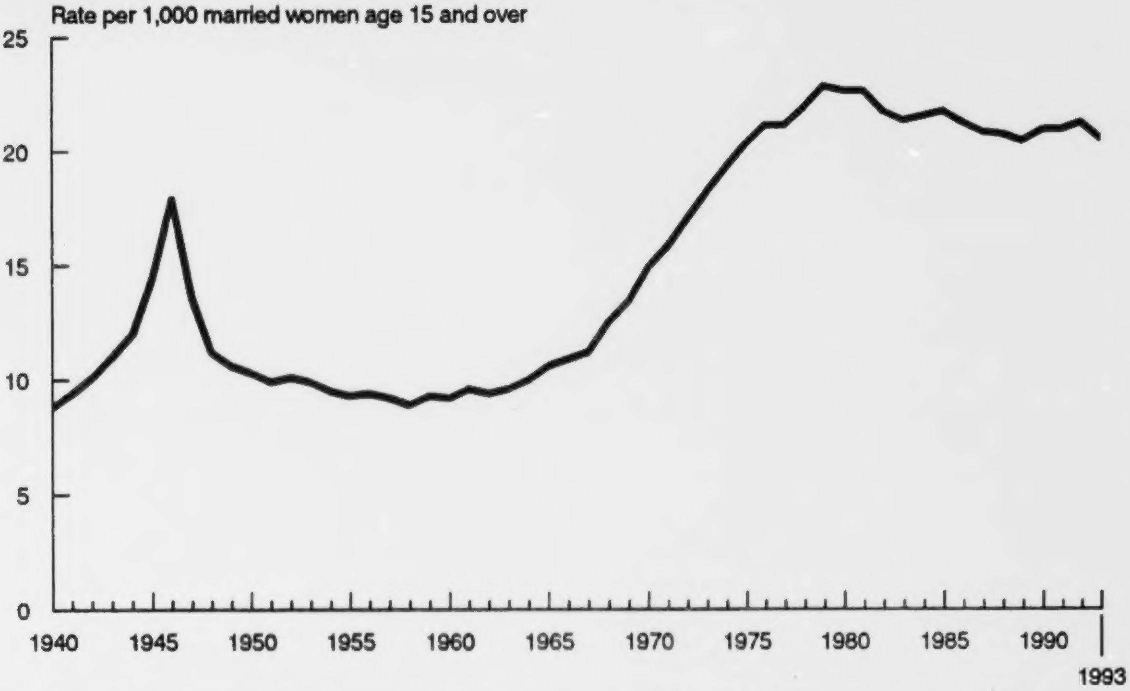
**Figures III-2 and III-3.**

Changing patterns of marriage have combined with fluctuations in the size of the population at each age to alter the number of unmarried women of childbearing age. This number is an important determinant of the **number** of nonmarital births; the nonmarital birth **ratio** is affected by both the number of married women and the number of unmarried women. Patterns of marriage among men are just as important as those among women in affecting these outcomes. This section examines changes in marriage among both men and women.

Men and women are much less likely to be married than they were forty years ago. The changes in marriage patterns have occurred among all ages, but have been especially dramatic among those in their twenties. For example, between 1955 and 1992, the percent unmarried increased from 49 to 82 among men 20-24 years of age, and from 30 to 54 among men 25-29 years of age. During the same time period, the percent of women unmarried increased from 31 to 68 among those 20-24 years of age, and from 14 to 41% among those aged 25-29.

The proportion of teenagers who are unmarried has historically been very high, but substantial increases have occurred in the proportion of college-aged teens (18-19) who are unmarried - from 68% among women aged 18-19 in 1955 to 91% in 1992. These trends show no sign of abating.

**Figure III-4. Divorce rate per 1,000 married women aged 15 years and older: United States, 1940-93**

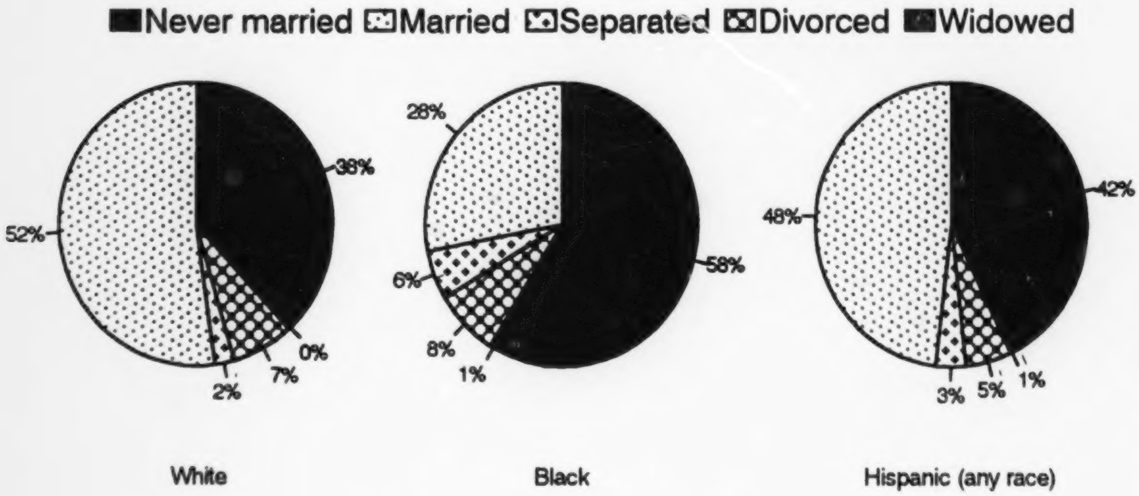


Source: Clarke, SC. Advance Report of Final Divorce Statistics, 1989 and 1990. National Center for Health Statistics, 1995; Division of Vital Statistics, NCHS. Provisional Data for 1991-93.

Among men and women in the early childbearing ages, the decline in the married population largely reflects delays in the timing of first marriage. The percent of women aged 25-29 who had never married tripled, from 11 to 33%, between 1950 and 1992[7]. In addition, increases in divorce during the 1960s and 1970s and declines in remarriage rates[8] have helped to swell the numbers of previously married men and women who could father or give birth to a child, particularly among those over age thirty.

Most nonmarital births occur to women who have never been married. But about one in four are born to women who are divorced, widowed or separated. Among births to unmarried women during the period 1970-84, 28% occurred to women who had been previously married[9].

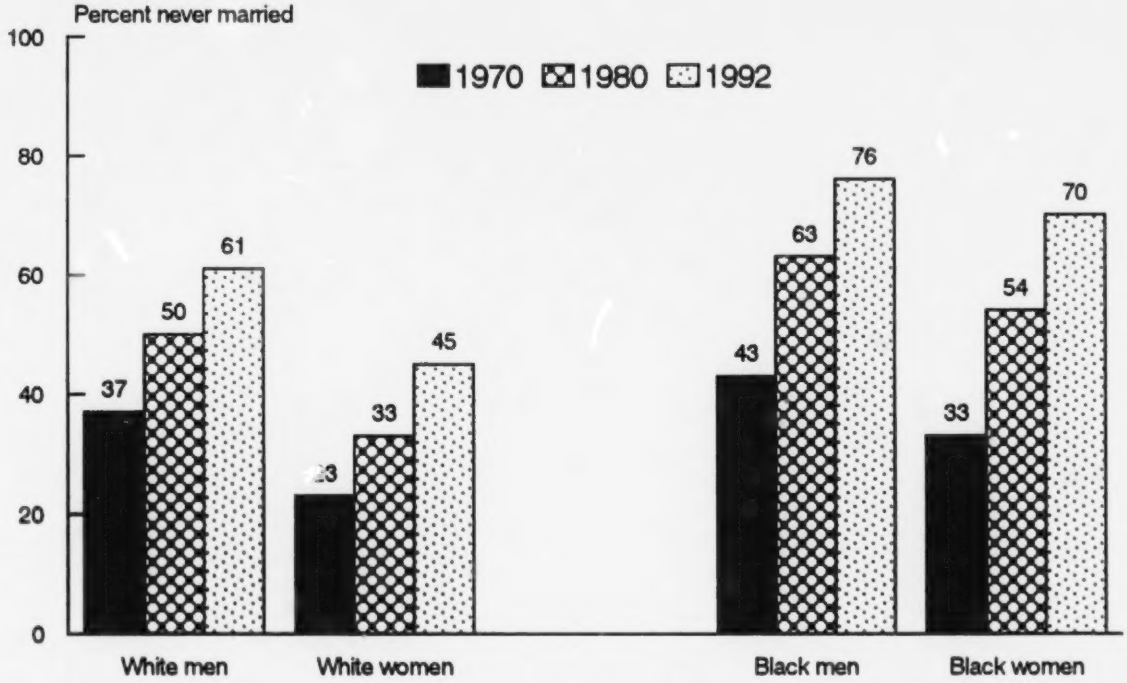
**Figure III-5. Percent distribution by marital status according to race and ethnicity, population aged 15-44: United States, 1992**



Source: U.S. Bureau of the Census. Current Population Reports. Series P20, No. 468. Marital Status and Living Arrangements: March 1992. See Appendix table III-3.

Lower rates of marriage, and not increased separation or divorce, are primarily responsible for the higher proportions of black men and women who are unmarried. Over half (58%) of black men and women aged 15-44 had never been married in 1992, compared with 38% of white and 42% of Hispanic persons of the same age. Further, some studies project that the proportion of women who will **never** marry has risen over recent decades, with the increase particularly steep among black women[10].

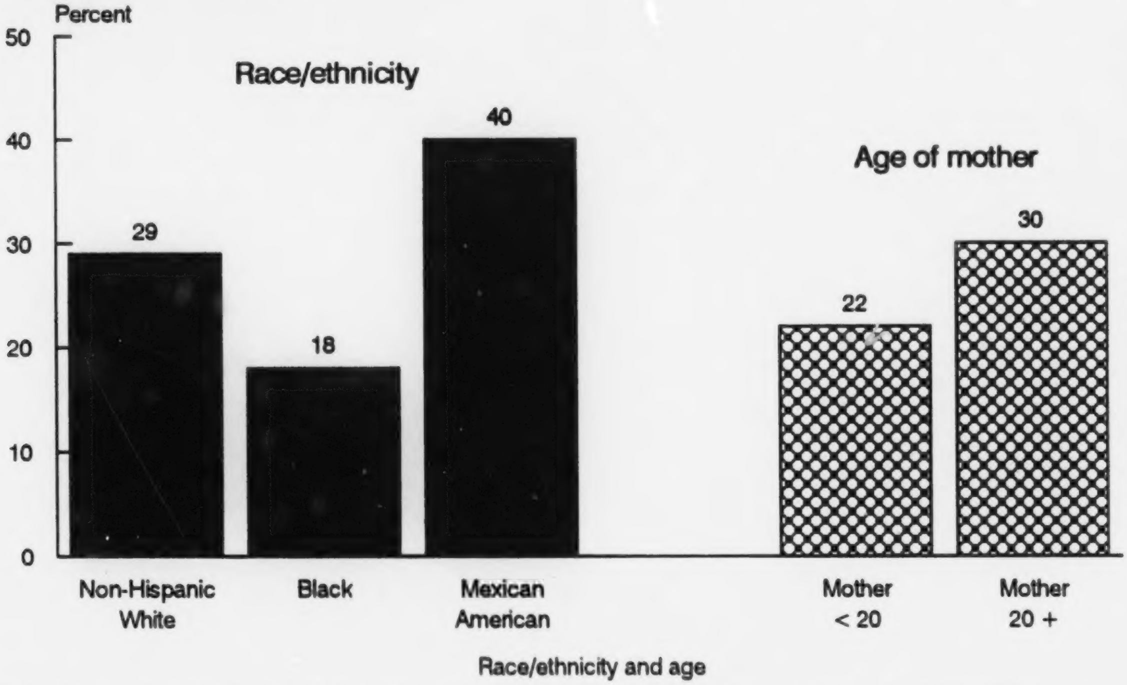
**Figure III-6. Percent population aged 20-29 never married, by sex and race: United States, 1970, 1980 and 1992**



Source: U.S. Bureau of the Census. Current Population Reports. Series P20. Marital Status and Living Arrangements: 1970/80/92. See Appendix table III-3.

Increases in the proportions never married have been dramatic in both the black and white populations. By 1992, 76% of black men and 70% of black women aged 20-29 were never married, up from 43% and 33%, respectively, in 1970. By contrast, 61% of white men and 45% of white women of the same age were never married in 1992, up from 37% and 23%, respectively, in 1970.

**Figure III-7. Percent of nonmarital births 1970-84 occurring to cohabiting women, by characteristics of mother**



Source: Bumpass, LL and JA Sweet. 1989. Children's Experience in Single-Parent Families: Implications of Cohabitation and Marital Transitions. Family Planning Perspectives 21(6):256-260.

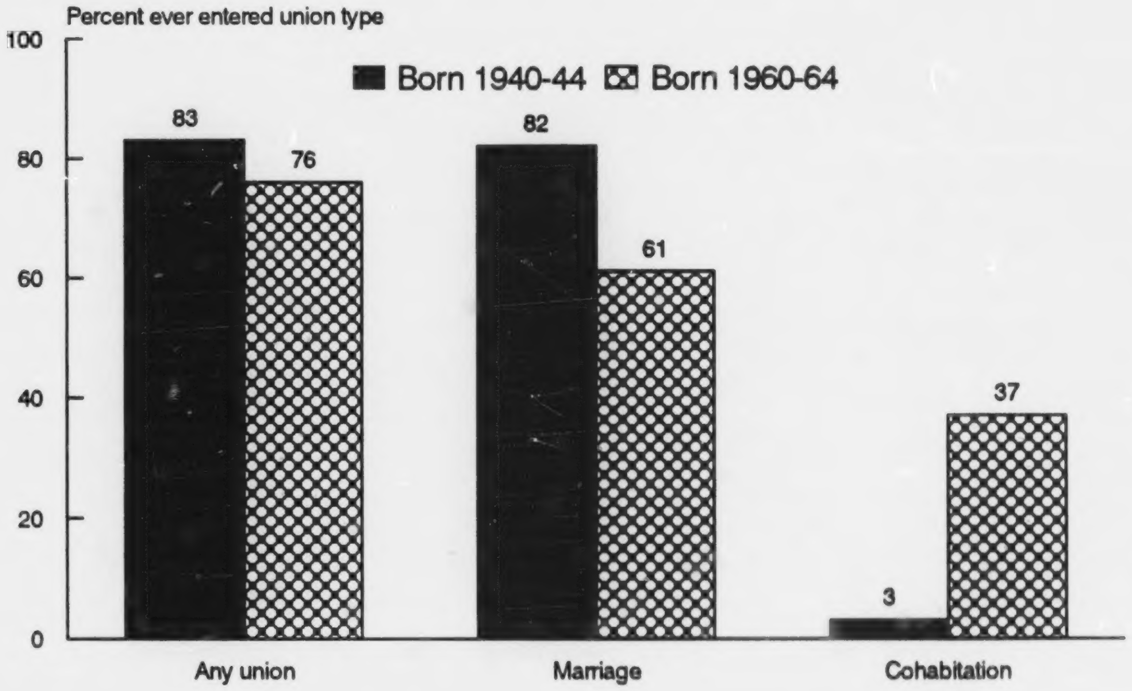
Over recent decades, as marriage has declined and divorce risen, nonmarital cohabitation has emerged as an increasingly common living arrangement among American men and women[11]. Although cohabitation has long existed in other societies, it has only recently become well established within the United States. A cohabiting couple is usually defined as one in which the partners are unmarried but share the same living quarters. Information on cohabitation is now collected by the Census Bureau and many surveys, but federal statistics provide little information on trends in cohabitation.

Cohabitation is important for nonmarital childbearing because a substantial proportion of nonmarital births -- over one quarter of those between 1970 and 1984 -- occurs to cohabiting couples, according to data from the National Survey of Families and Households. Nonmarital birth may have different consequences for these children, who begin life with two co-resident parents rather than one. But research shows important differences between cohabitation and legal marriage. Most significantly, cohabitation lacks the long-term stability of legal marriage. Many

**Figure III-7. Percent of nonmarital births 1970-84 occurring to cohabiting women, by characteristics of mother**

cohabiting couples separate within a few years. During the 1970s, about 60% of cohabiting couples married each other within three years, but this proportion has since declined to less than 40%.[12] Furthermore, those couples that do marry are more likely to divorce, compared to those that did not cohabit before marriage[13].

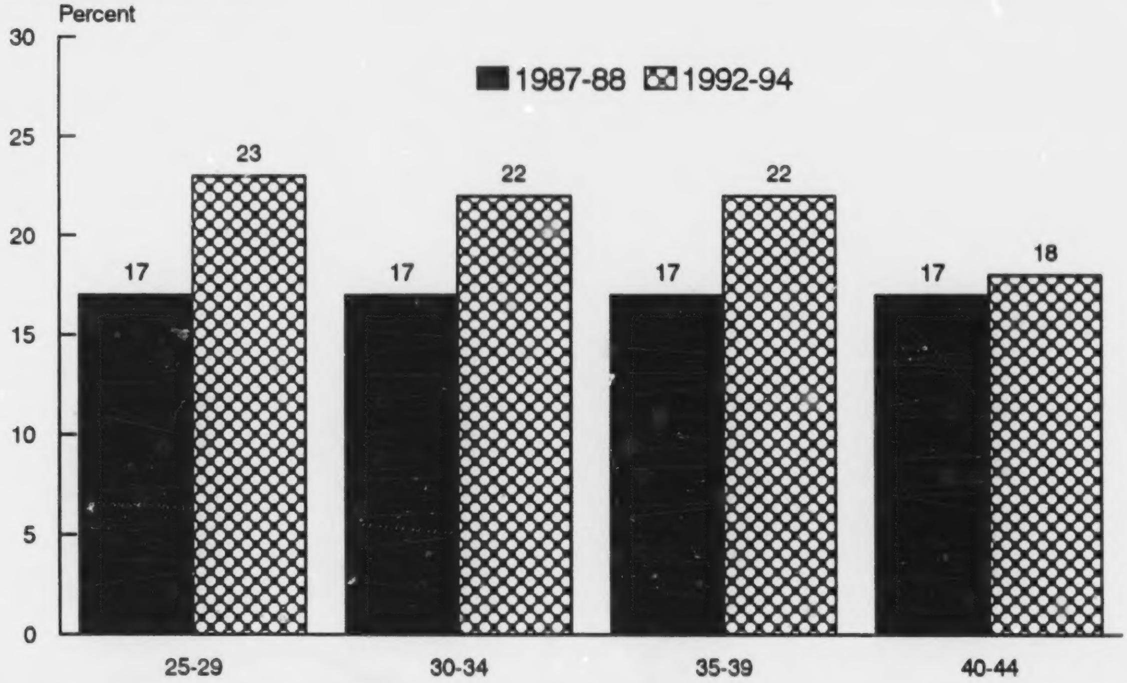
**Figure III-8. Union formation by age 25: Women by year born**



Source: Bumpass, LL and JA Sweet. 1989. National Estimates of Cohabitation. Demography 26(4):615-625.

Cohabitation has increased dramatically in recent decades. Among women born in the early 1940s, only 3% cohabited before age 25; among those born twenty years later, 37% had done so. Because of the rise in cohabitation, women born in the later time period were nearly as likely as those born earlier to enter into some type of union by age 25. This suggests that young men and women, while delaying legal marriage, are not delaying the formation of co-residential sexual unions.

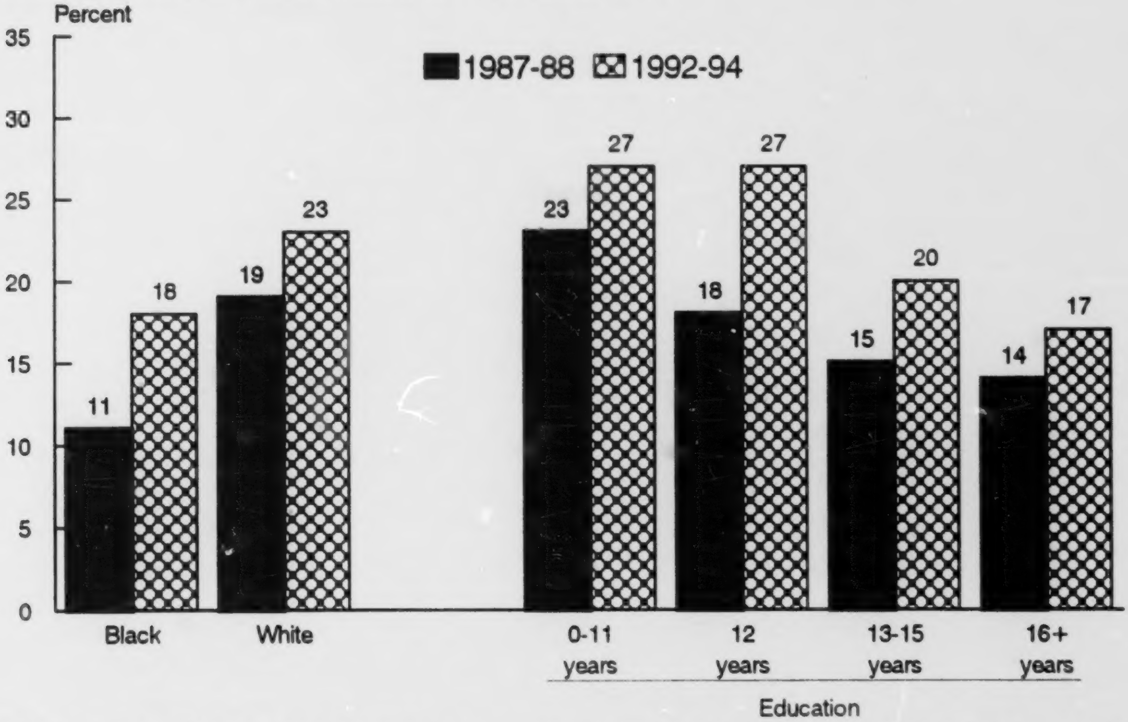
**Figure III-9. Percent of unmarried women currently cohabiting by age: United States, 1987-88 and 1992-94**



Source: Bumpass, LL and JA Sweet. 1995. Cohabitation, Marriage and Union Stability: Preliminary Findings from NSFH2. CDE Working Paper 65. Madison: Center for Demography and Ecology, University of Wisconsin. See Appendix table III-5.

Cohabitation continued to increase in the late 1980s and early 1990s. Between 22 and 23% of unmarried persons in their late twenties and thirties were currently cohabiting in 1992-94; up from 17% in 1987-88. In 1992-94, about half of all persons aged 25-39 had ever cohabited.[14]

**Figure III-10. Percent of unmarried women aged 25-39 currently cohabiting, by race and years of education: United States, 1987-88 and 1992-94**

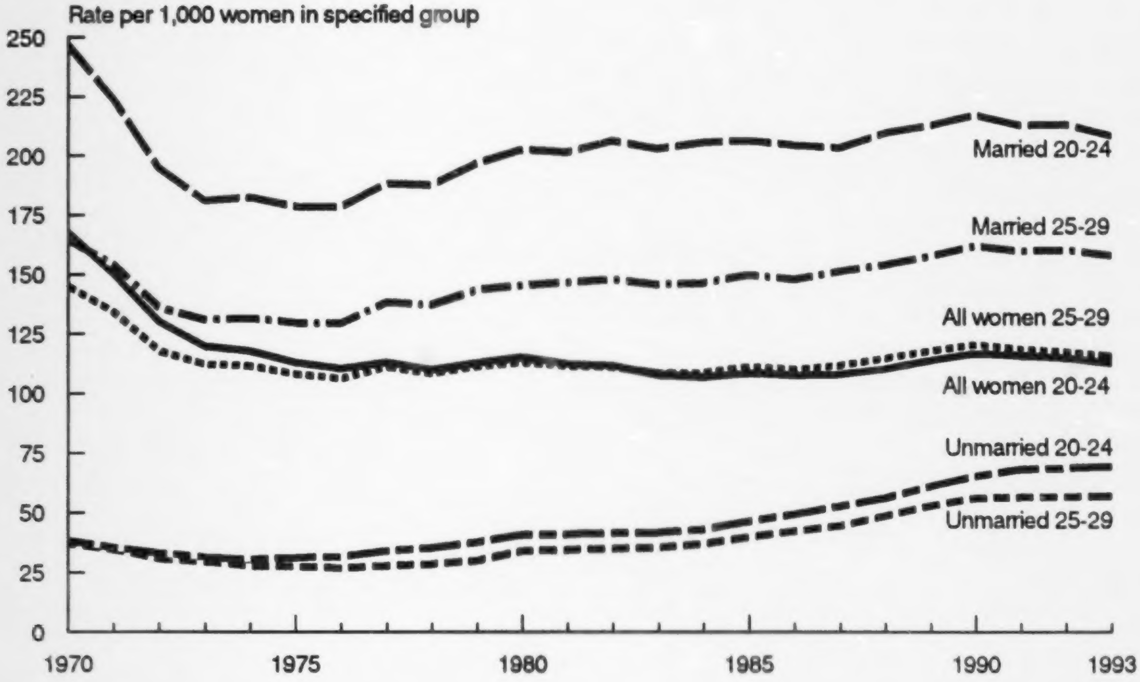


Source: Bumpass, LL and JA Sweet. 1995. Cohabitation, Marriage and Union Stability: Preliminary Findings from NSFH2. CDE Working Paper 65. Madison: Center for Demography and Ecology, University of Wisconsin. See Appendix table III-5.

The prevalence of cohabitation differs among different ethnic groups. White women are more likely to cohabit than black women, and more likely to marry once cohabiting. Mexican American women are about as likely to cohabit as non-Hispanic white women[15], but are more likely to have a nonmarital birth within a cohabitational union (see figure III-7).

Cohabitation is less common among unmarried women who have attended or graduated from college than among those with a high school education or less. In the early 1990s, 27% of unmarried women who had completed 12 or fewer years of education were currently cohabiting, compared with 17% among those with 16 or more years of education.

**Figure III-11. Birth rates for women aged 20-29 years by age and marital status: United States, 1970-93**



Sources: Ventura SJ, Martin JA, Taffel SM, et al. Advance Report of Final Natality Statistics, 1992. Monthly Vital Statistics Report, Vol. 43, No. 5, Suppl. 1994. Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. 1995. Vital Statistics of the United States, 1992. Volume I, Natality. In preparation. See Appendix tables I-2 and III-7.

The nonmarital birth **ratio** is affected by changes in the number of marital births as well as changes in the number of nonmarital births. For example, the ratio would increase if fewer births occurred to married women, even if the number of births to unmarried women did not change at all. To understand changes in this ratio, then, information on trends in marital fertility is necessary.

Although the overall birth rate for married women 15-44 years of age has declined almost continuously since the early 1960s, from 157 per 1000 women in 1960 to 87 in 1993, age-specific birth rates for married women have actually increased since the early 1970s. This apparent anomaly is a result of changing marriage patterns. As marriage has been delayed to later and later ages, the population of married women who could give birth has grown increasingly older. Marital birth rates decline sharply with increasing age, so the average rate at which married women give birth has declined, even though rates at each age have increased modestly.

At each age, nonmarital birth rates have increased more rapidly than marital birth rates,

**Figure III-11. Birth rates for women aged 20-29 years by age and marital status: United States 1970-93**

pushing the nonmarital birth ratio up. For example, among women 20-24 years of age, the marital birth rate increased from 202 to 208 births per 1000 women between 1980 and 1993, a 3% increase. During the same period, the nonmarital birth rate for women of the same age increased from 41 to 69, a 69% increase.

Despite the increases in nonmarital birth, birth rates for married women are still dramatically higher than those for unmarried women.

Have the increases in nonmarital birth rates affected birth rates within marriage? Little research has addressed this question. It is possible that, as increasing proportions of couples enter marriage with children already present, the rates of childbearing within marriage could decline. On the other hand, research has shown that marriage tends to increase the odds of childbearing even when children from previous marriages are present.[16] Further research is needed to study the interrelationship between nonmarital and marital fertility trends.

## III. What's Driving the Trends: Factors Affecting Change in Nonmarital Births

### Decomposition of Trends in the Nonmarital Birth Ratio among Black and White Women in the United States, 1960-92

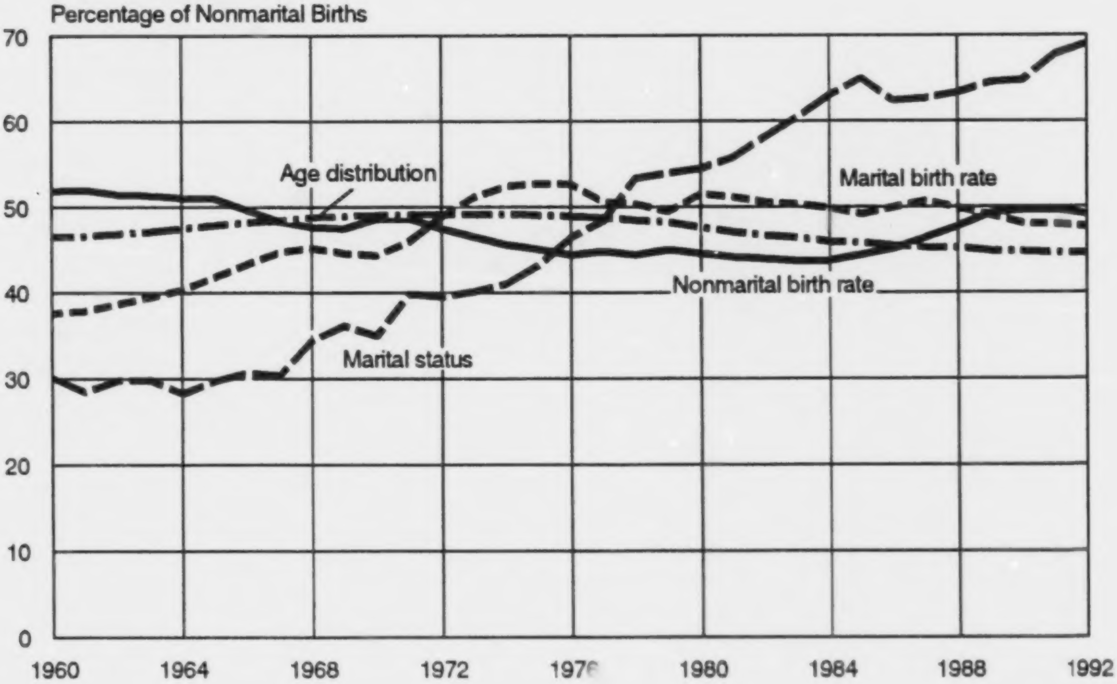
In a statistical sense, the nonmarital birth ratio is a function of four components. These include the age-specific birth rates for unmarried women; the age-specific birth rates for married women; the age distribution of women in the childbearing ages, and the proportion of women unmarried at each age. In this section, we examine how important each of these components has been in influencing trends in nonmarital birth ratios for black and white women.

Trends in most of these components have been described previously. Nonmarital birth rates declined for black women during the period 1960-76, and have since increased. Birth rates for married black women also fell from 1960 to 1976, and have been generally stable since 1976. The age distribution of black women shifted during the period from 1960 to the mid 1970s to a markedly younger population, but has since aged. The population was on the whole older in 1992 than in 1960. Changes in the proportion not married among black women have been fairly continuous, with increasing proportions unmarried at each age throughout the period 1960-92.

Trends for white women in age-specific marital birth rates, the age distribution, and the percent not married were similar to those for black women. However, the trends in age-specific nonmarital birth rates were quite different. Age-specific rates for unmarried white women aged 20 and older rose from 1960 to the late 1960s and then dropped until the mid 1970s. Since the late 1970s, rates have risen substantially for white women in all age groups under 40. Rates for teens aged 15-19 have risen throughout the period 1960-92.

The figures which follow depict how strongly, and in what direction, changes in rates of marital and nonmarital birth, changes in the age distribution of women in the childbearing ages, and changes in the proportion not married have affected the proportion of black and white births that occur to unmarried women (the nonmarital birth ratio). Each of these factors is represented by a line on the graph. The steeper the upward slope of the line, the more important that factor was in driving up the nonmarital birth ratio at that point in time. For example, since the early 1980s, increases in nonmarital birth rates have had a stronger effect than increases in the proportion unmarried on the nonmarital birth ratios for white and black births. The steeper the downward slope of the line, the more important the factor was in driving down the nonmarital birth ratio. And if a line is flat (parallel to the X-axis) the factor had no effect on the nonmarital birth ratio during that period of time. Appendix B displays the observed and standardized nonmarital birth ratios calculated to estimate these effects.[17]

**Figure III-12. Standardized effects of selected factors on nonmarital birth ratios for black women: United States, 1960-92**

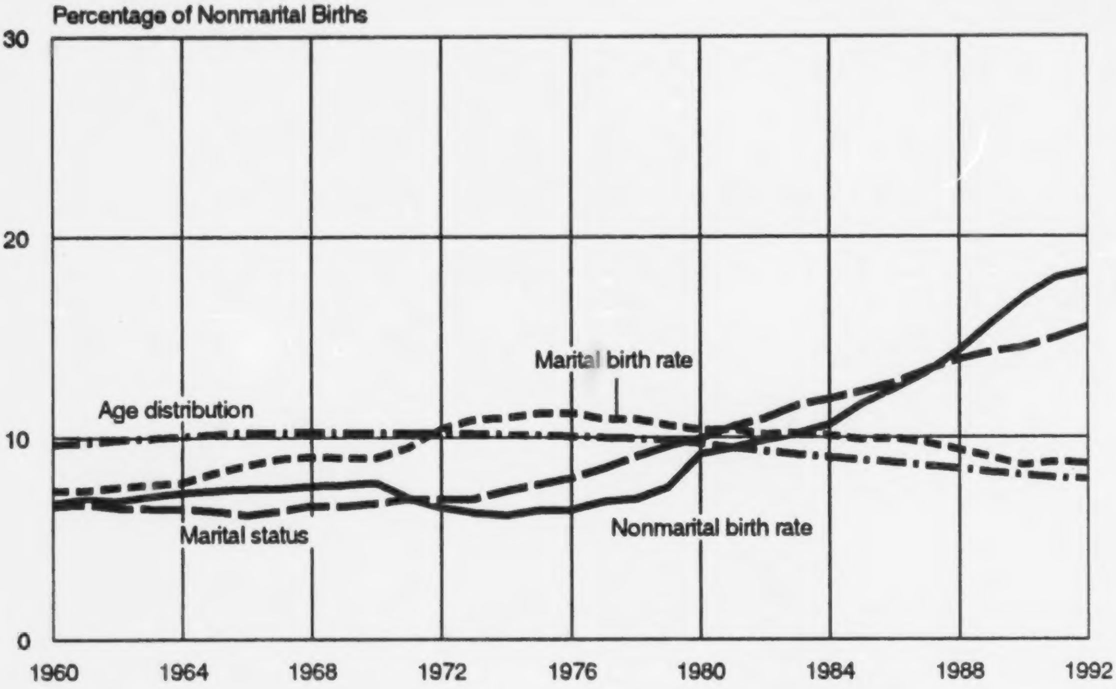


Source: Smith HL, Koropeckyj-Cox T, and Morgan PS. A Decomposition of Trends in the Nonmarital Fertility Ratio among Blacks and Whites in the United States, 1960-92. 1995. See Appendix B.

The most important factor fueling the rise in **black** nonmarital birth ratios between 1968 and 1984 was the decline in the percentage married at all ages. Declines in marital fertility rates were another important factor in increases in this ratio through 1975. However, since that time, changes in both marital fertility rates and the age distribution of black women have exerted a small **downward** pressure on nonmarital birth ratios. Trends in nonmarital rates also tended to push the ratio downward through 1984. More recently, however, both increases in nonmarital birth rates (during 1984-91) and decreases in the percent married (since 1986) have been responsible for the continued increase in the percentage of births that occurred to black unmarried women.

# III. What's Driving the Trends: Factors Affecting Change in Nonmarital Births

**Figure III-13. Standardized effects of selected factors on nonmarital birth ratios for white women: United States, 1960-92**

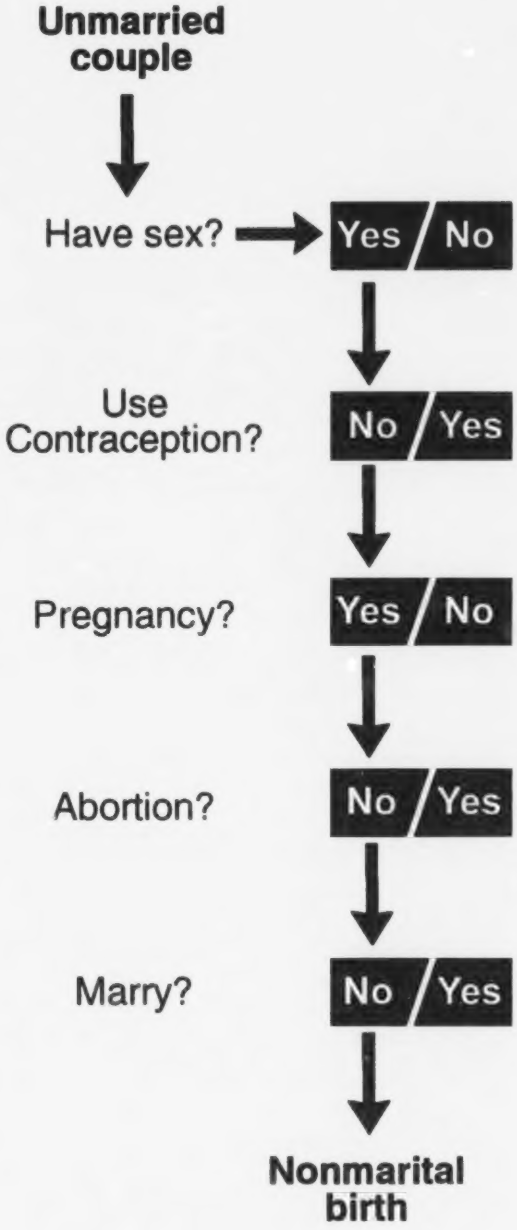


Source: Smith HL, Koropeckyj T, and Morgan PS. A Decomposition of Trends in the Nonmarital Fertility Ratio among Blacks and Whites in the United States, 1960-92. 1995. See Appendix B.

Changes in both nonmarital birth rates and the percent unmarried were important in fueling the increase in the nonmarital birth ratio among **white** women. During the 1960s, this ratio grew modestly due to increases in nonmarital fertility, decreases in marital fertility, and an increasingly "youthful" age structure. In the early 1970s, declines in nonmarital fertility tended to push the ratio down, but this effect was counterbalanced by declines in marital fertility, which tended to push it up. The net increase in the nonmarital birth ratio during this period was essentially equivalent to that caused by declines in marriage alone. Since the mid-1970s, the aging of the population and increases in marital fertility should each have led to a two-point decline in the percentage of nonmarital births. However, the strong effects of declining marriage and, especially, increasing rates of nonmarital fertility, have continued to push the nonmarital birth ratio upward.

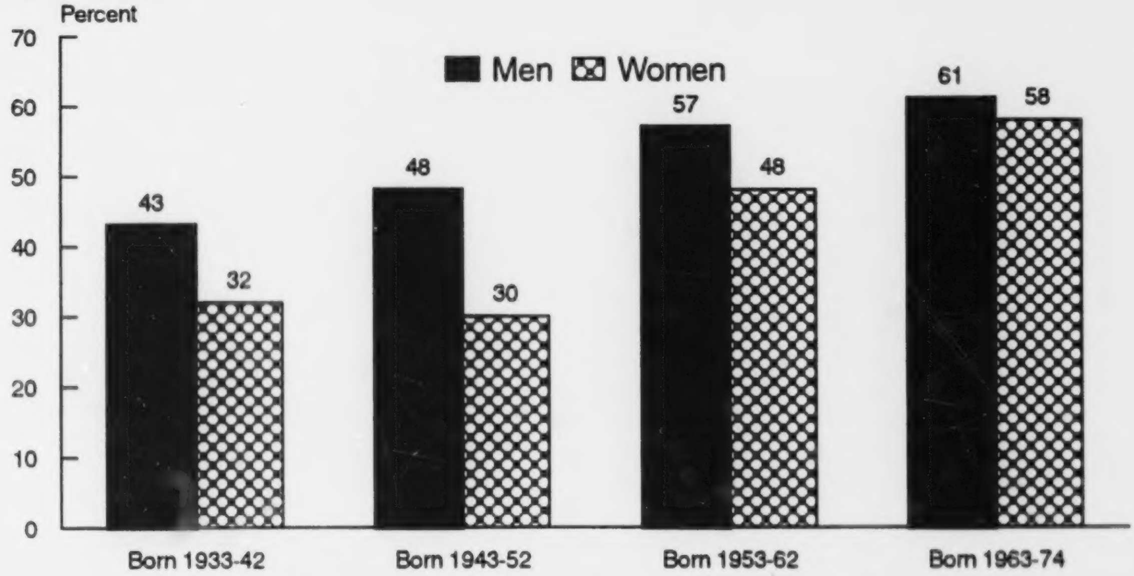
## IV. The Path to Nonmarital Fertility

Given the size and age composition of the unmarried population, many events lead up to the birth of a child outside of marriage. At each point along the path, there are decision points that may affect the likelihood that a nonmarital birth will occur. Unmarried men and women decide whether to have sexual intercourse, and whether to use a method of contraception to prevent pregnancy from occurring. If the woman becomes pregnant, some choose abortion, while others choose to have the child. Couples may choose to marry at any point; if they do so before conception occurs or during pregnancy they avoid having a nonmarital birth. And, once the nonmarital birth occurs, they may choose to place a baby born outside of marriage for adoption. This section reviews trends affecting these steps along the path to nonmarital childbearing.



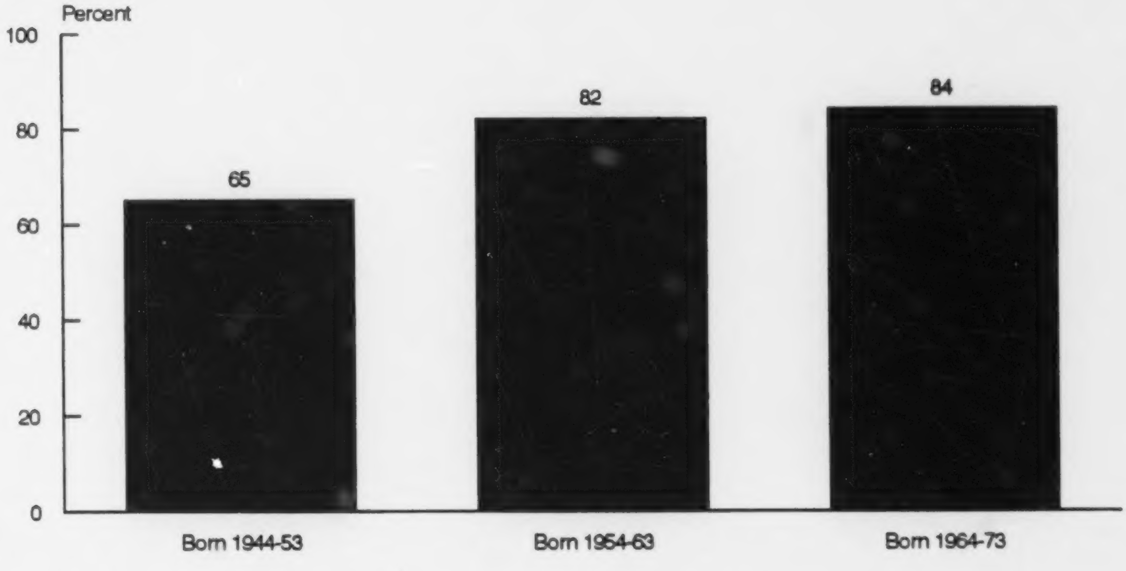
# IV. The Path to Nonmarital Fertility

**Figure IV-1. Percent of adults who have had sexual intercourse by age 18, by year of birth: United States**



Source: Laumann et al. 1994. The Social Organization of Sexuality. Chicago: The University of Chicago Press.

**Figure IV-2. Percent of ever-married women who had sex before marriage by year of birth: United States**



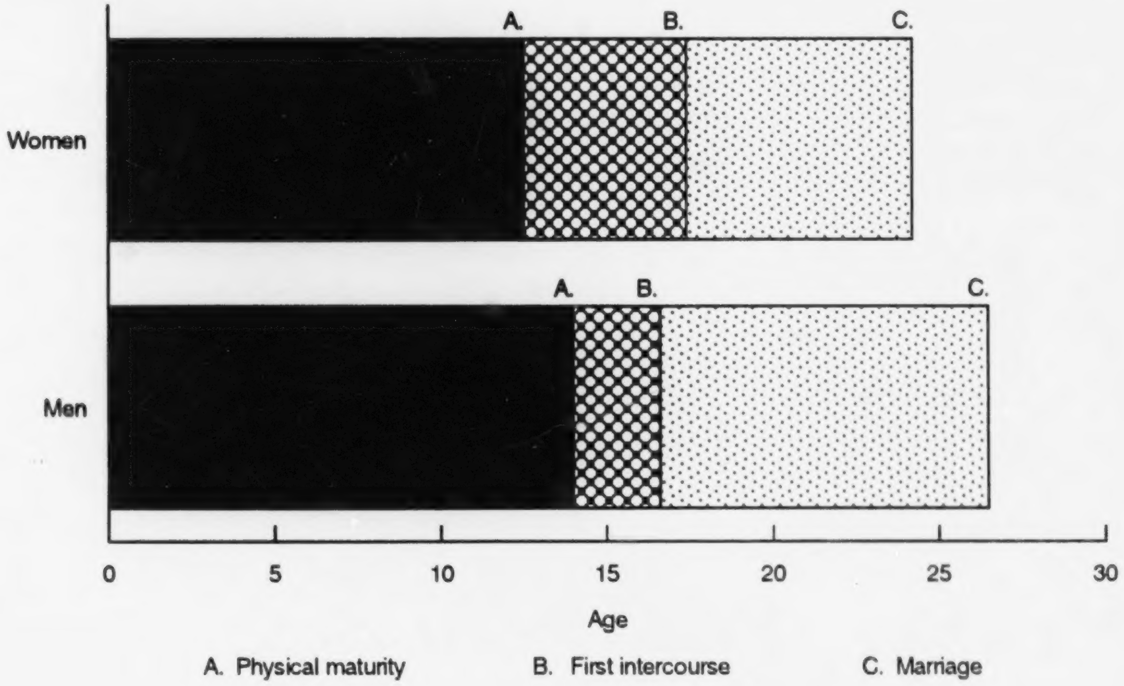
Source: National Center for Health Statistics. National Survey of Family Growth Cycle 4, 1988. See Appendix table IV-2.

## IV. The Path to Nonmarital Fertility

**Figures IV-1 and IV-2.**

A decrease in the age at which men and women begin to have sexual intercourse and an increase in the proportion who begin their sexual experience before marriage have placed an increasing proportion of unmarried persons at risk of fathering or conceiving a baby. Comparing the experience of those born between 1933-42 and those born thirty years later, in 1963-74, the percent beginning to have sex before age 18 increased from 43 to 61% among men, and from 32 to 58% among women. Among ever married women in 1988, 65% of those born in 1944-53 had begun having sexual intercourse before marriage; among those born in 1964-73, 84% had done so.

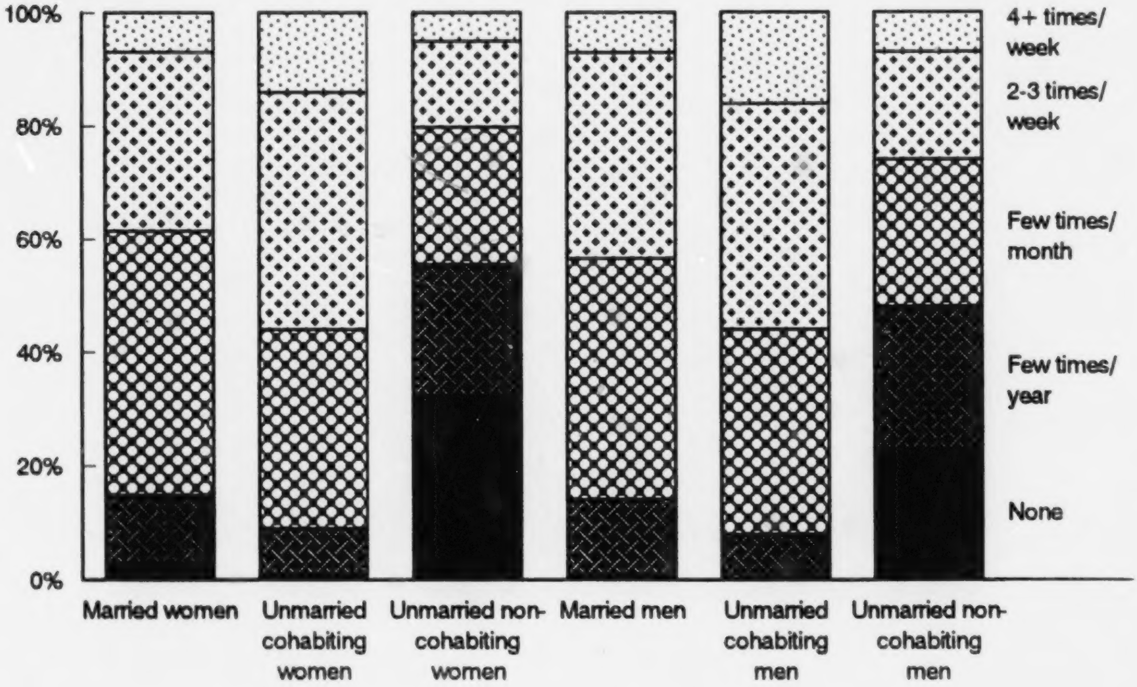
Figure IV-3. Exposure time from median age at physical maturity to sexual initiation to marriage: United States, 1988



Source: Alan Guttmacher Institute. 1994. Sex and America's Teenagers. New York: Alan Guttmacher Institute.

The trend toward earlier age at sexual initiation and later age at marriage means that the period during which the average young man or woman is at risk of fathering or conceiving a premarital birth has been extended. In 1988, the interval between the median ages of first sex and marriage was seven years for women, and 10 years for men.[18]

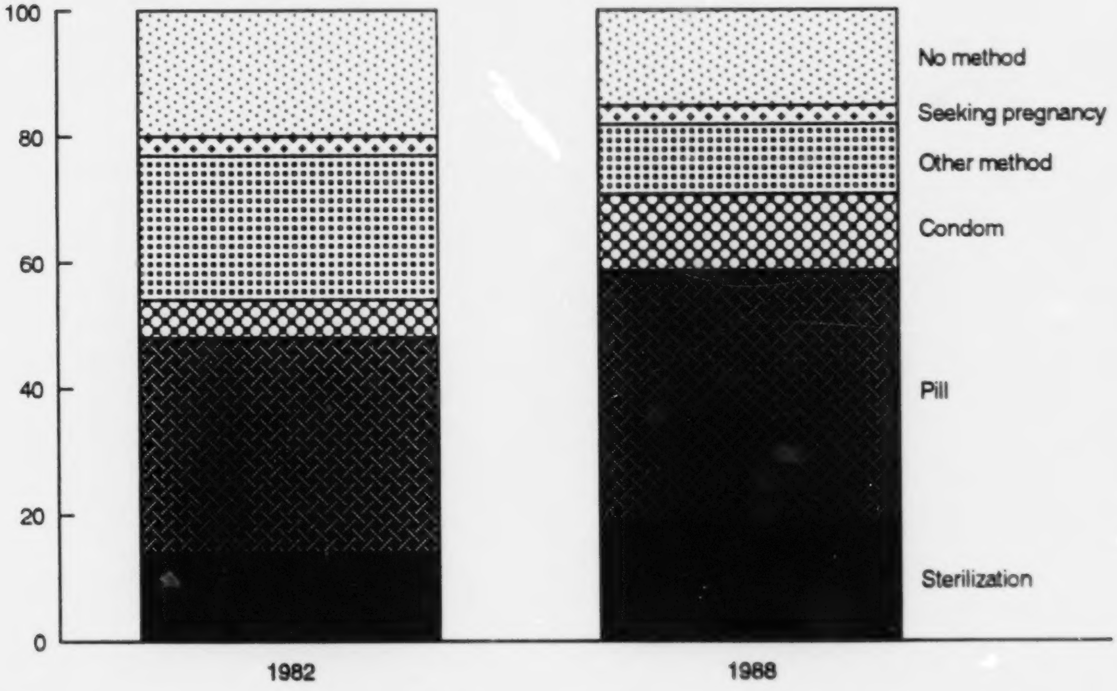
**Figure IV-4. Frequency of sexual intercourse in past year, adults 18-59: United States, 1993**



Source: Laumann, EO et al. 1994. The Social Organization of Sexuality. Chicago. The University of Chicago Press. See Appendix table IV-1.

Although many unmarried people are sexually experienced, they are less exposed to the risk of pregnancy than married people because they have sex, on average, much less frequently. According to data from a 1993 study, 39% of married women have sex twice a week or more, compared with 20% of unmarried, noncohabiting women. Thirty-two percent of unmarried women, but only 3% of married women had not had sex at all in the past year. However, unmarried cohabiting men and women have sex more frequently than married people: among women, 56% have sex twice a week or more, and only 1% not at all in the past year (see Appendix Table IV-1).[19]

**Figure IV-5. Contraceptive use among unmarried sexually active women 15-44: United States, 1982 and 1988**

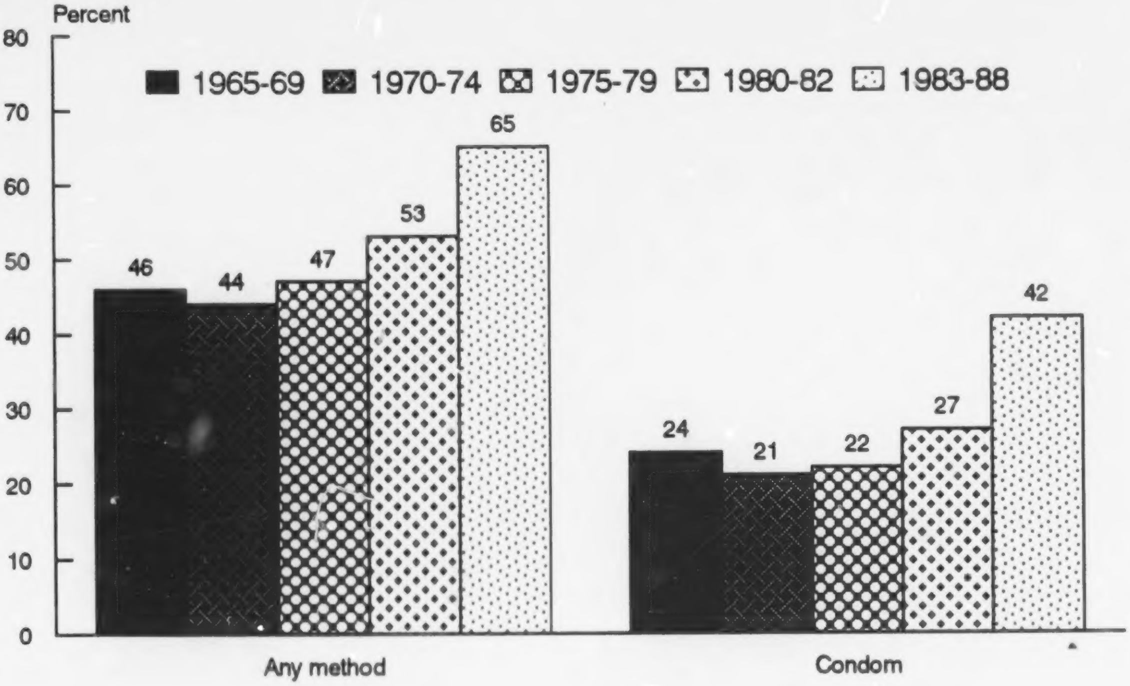


(Excludes women not sexually active within last 3 months, pregnant or postpartum, or sterile not for contraceptive reasons)

Source: Mosher, WD and WF Pratt. 1990. Contraceptive Use in the United States, 1973-88. Advance data from Vital and Health Statistics, No. 182. Hyattsville, Maryland. National Center for Health Statistics. See Appendix table IV-3.

Among unmarried people who are sexually active, nonmarital birth can be prevented by effective and consistent use of contraceptive methods. Most sexually active unmarried women do use a method of contraception. Among women who were unmarried in 1988 and exposed to the risk of pregnancy within a three month period,[20] 82% were currently using a contraceptive method, primarily pill (39%), sterilization (19%) and condom (12%). Very few - less than 3% in 1988 - do not use a method because they are seeking to become pregnant.

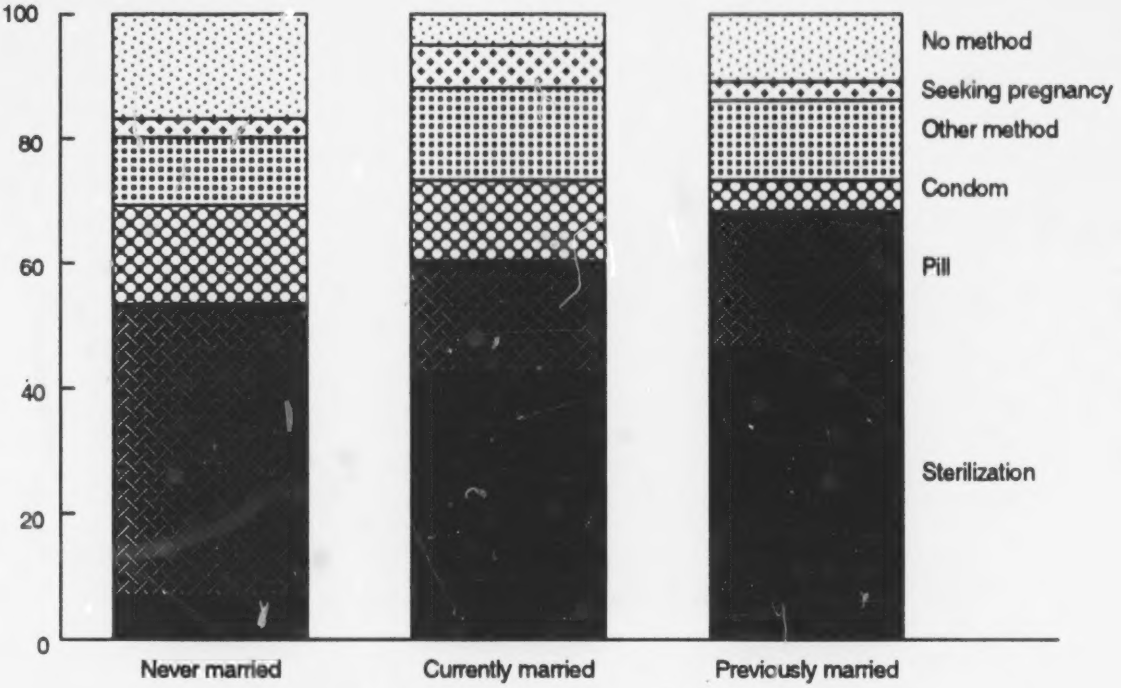
**Figure IV-6. Percent of women aged 15-44 using contraceptives at first premarital intercourse, by year of first intercourse**



Source: Mosher, WD and JW McNally. 1991. Contraceptive Use at First Premarital Intercourse: United States, 1965-1988. Family Planning Perspectives, 23(3):108-115, 117. See Appendix table IV-3.

The contraceptive practice of unmarried people improved during the 1980s. Use of a method at first premarital sexual intercourse increased from 47% in 1975-79 to 65% in 1983-88, reflecting a sharp increase in the use of condoms. The proportion of unmarried women at risk of pregnancy who were not currently using a method and not seeking pregnancy declined between 1982 and 1988, from 20% to 15% (See Figure IV-5).

**Figure IV-7. Contraceptive use among sexually active women 15-44, by marital status: United States, 1988**



(Excludes women not sexually active within last 3 months, pregnant or postpartum, or sterile not for contraceptive reasons)

Source: Mosher, WD and WF Pratt. 1990. Contraceptive Use in the United States, 1973-88. Advance data from Vital and Health Statistics, No. 182. Hyattsville, Maryland. National Center for Health Statistics.

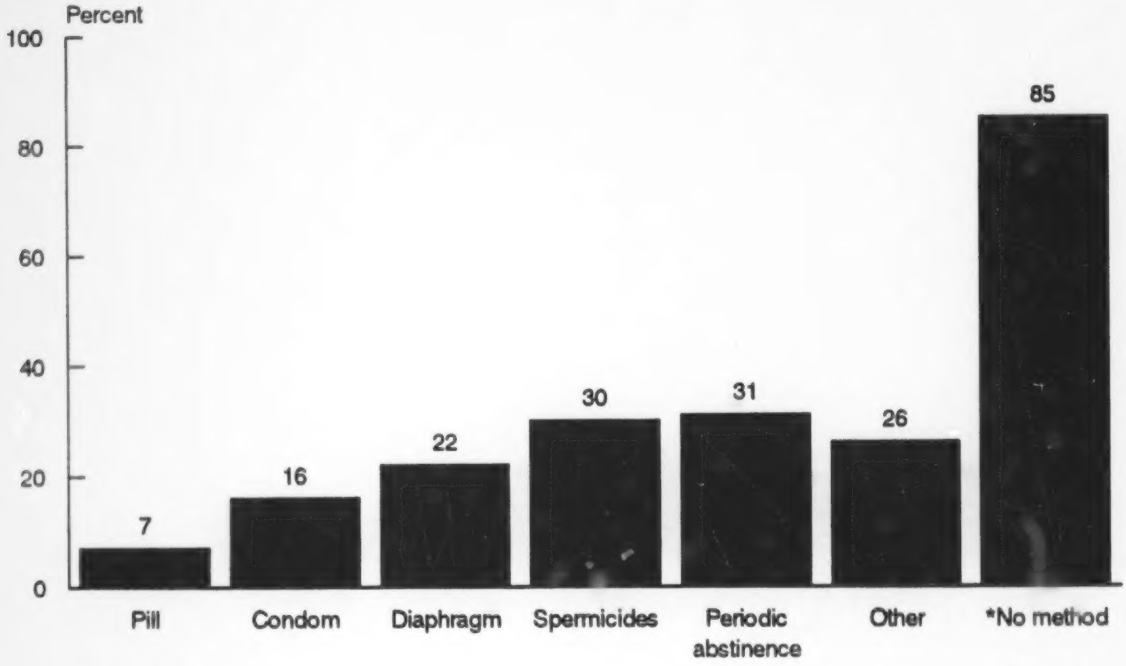
Unmarried women, whether never married or previously married, are much less likely than married women to be using contraception. In 1988, 17% of sexually active never married women and 11% of sexually active previously married women, compared with only 5% of currently married women, were not seeking pregnancy and not using a method of contraception. In part, these differences reflect differences in age and experience among married, previously married, and never married women. They may also reflect the sporadic and unpredictable nature of unmarried sex, and the greater difficulty unmarried men and women have in planning to use protection.

Individuals' contraceptive choices vary by marital status, reflecting variation in the characteristics of relationships, childbearing expectations, and the perceived need for protection against HIV and other sexually transmitted infections. These choices can have an important impact on pregnancy risk. Although relatively few never married women choose sterilization, nearly half of previously married women rely on this method of contraception. Use of condoms by unmarried

**Figure IV-7. Contraceptive use among sexually active women 15-44, by marital status: United States, 1988**

couples to prevent sexually transmitted disease has increased. Although a shift from pill use to condom use would tend to reduce sexually transmitted diseases, it would also tend to increase the risk of unintended pregnancy because the pill is a more effective contraceptive method.

Figure IV-8. Percent of women 15-44 experiencing contraceptive failure during the first 12 months of use: various methods, United States, 1988

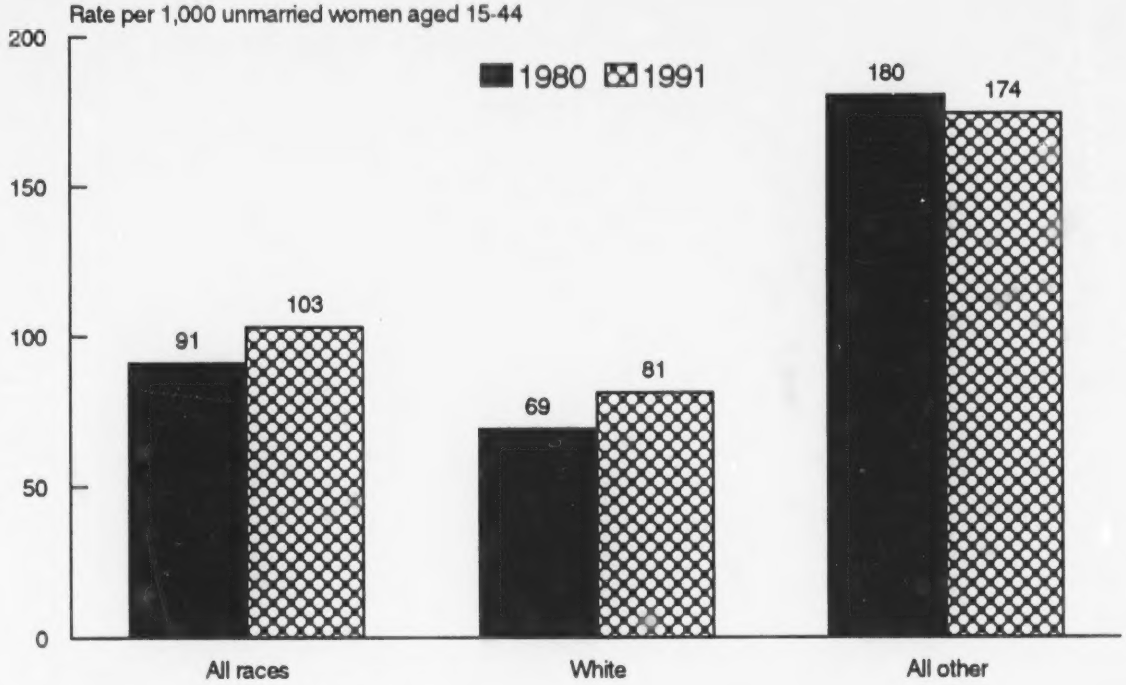


*Estimated. See Alan Guttmacher Institute. 1991.

Source: Jones, EF and JD Forrest. 1992. Contraceptive Failure Rates Based on the 1988 NSFG. Family Planning Perspectives 24(1):12-19.

Even effective methods of contraception fail sometimes. Nearly one in seven women become pregnant unintentionally during the first 12 months that they use a method. Failure rates during the first 12 months range from 7% for women using oral contraceptives to 31% for those relying on periodic abstinence methods, such as rhythm. However, even the highest of these rates are substantially lower than the pregnancy rate for unprotected sex, 85%[21].

**Figure IV-9. Pregnancy rates for unmarried women 15-44, by race: United States, 1980 and 1991**



Source: Ventura et al. 1995. Trends in Pregnancies and Pregnancy Rates: Estimates for the United States, 1980-92. Monthly Vital Statistics Report, 43(11), Suppl. Hyattsville, Maryland. National Center for Health Statistics. See Appendix table IV-4.

Despite improvements in contraceptive practice during the 1980s, overall pregnancy rates for unmarried women increased, from 91 to 103 per thousand women 15-44 years of age, between 1980 and 1991. The increase occurred only among white women, however. Pregnancy rates for unmarried women of all other races **declined** from 180 to 174 per 1000, while rates for white unmarried women increased 69 to 81 per 1000.

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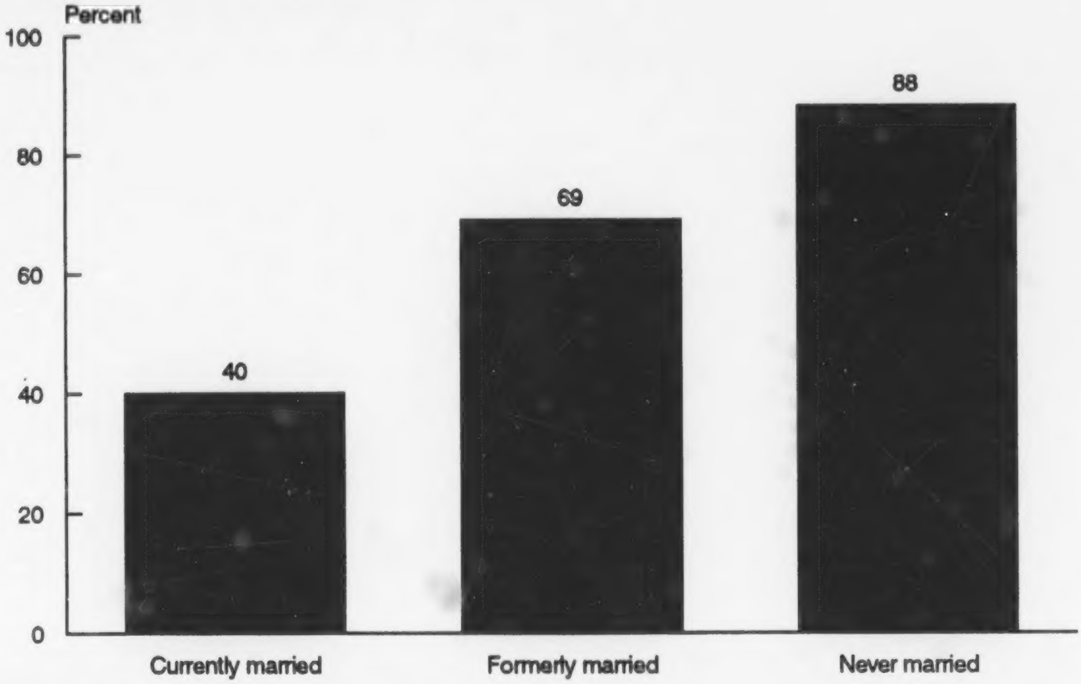
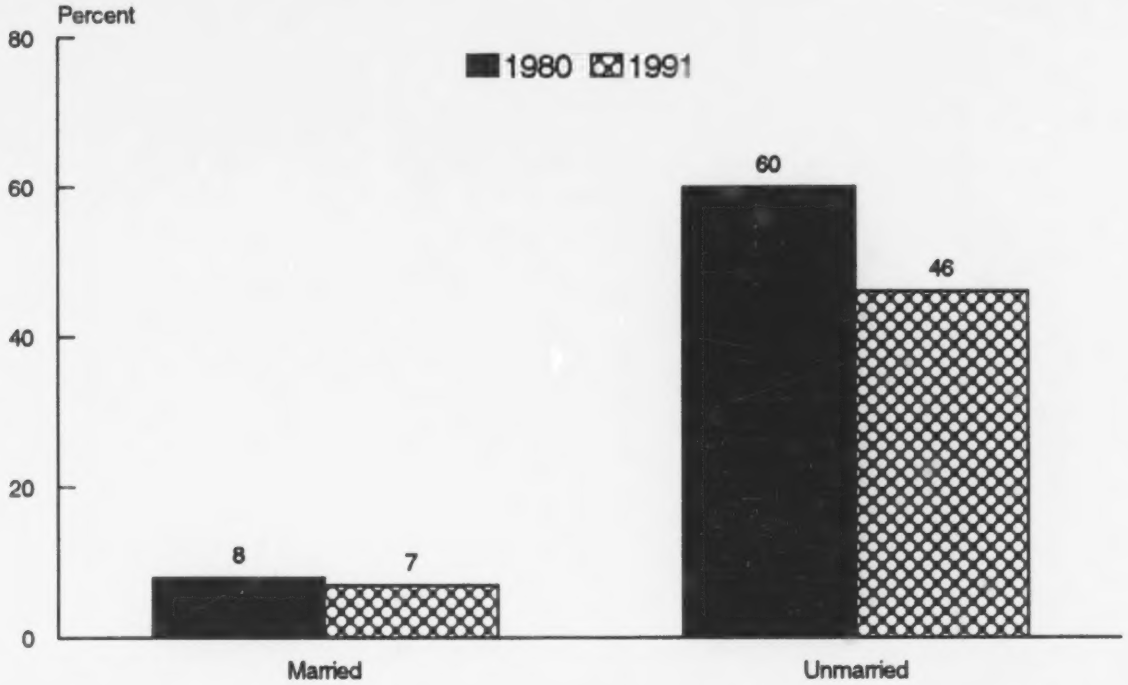
**Figure IV-10. Percent of pregnancies to women aged 15-44 unintended by women's marital status: United States, 1987**



Source: Forrest, JD. 1994. Epidemiology of Unintended Pregnancy and Contraceptive Use. American Journal of Obstetrics and Gynecology, 170:1485-1488. See Appendix table IV-5.

Most pregnancies to unmarried women are unintended. Information on whether pregnancies are intended comes from survey data in which women report whether pregnancies occurred at the "right" time, sooner than intended, or at a time when the woman did not want to have a child at any time in the future. Data on pregnancies that occurred in 1987 show that the vast majority of pregnancies to never married women (88%) were unwanted ever or at the time they occurred, compared with 69% of those to previously married women, and 40% of those to married women.

**Figure IV-11. Percent of pregnancies ending in abortion, by marital status among women of all races aged 15-44: United States, 1980 and 1991**

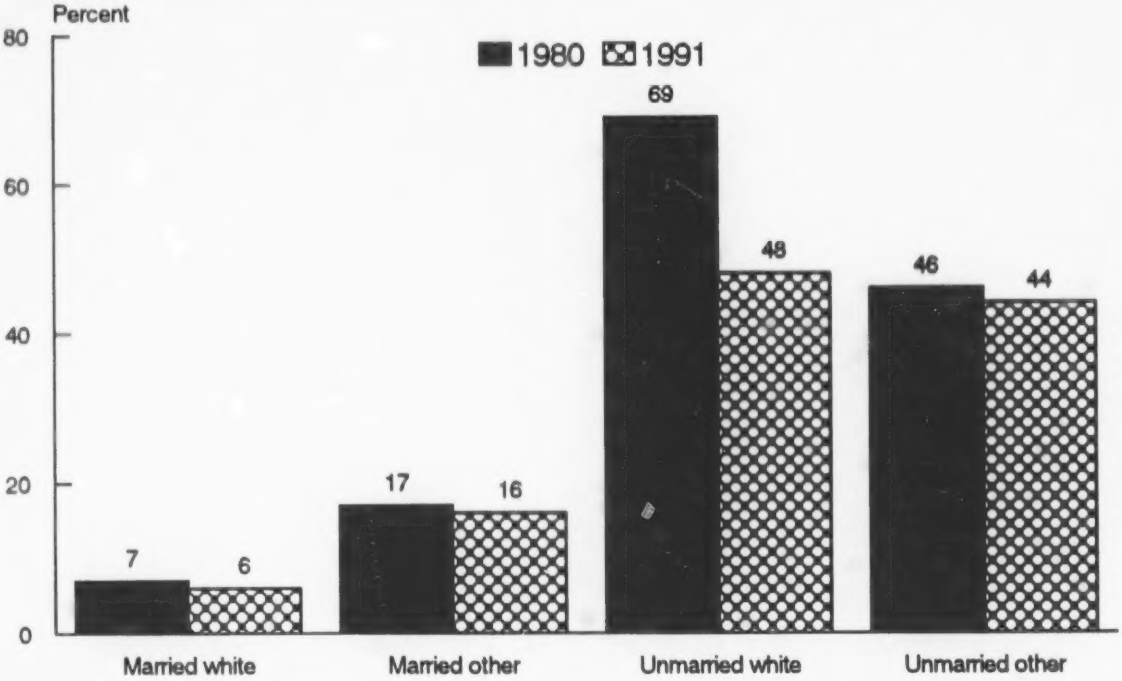


Source: Ventura et al. 1995. Trends in Pregnancies and Pregnancy Rates: Estimates for the United States, 1980-92. Monthly Vital Statistics Report, 43(11), Suppl. Hyattsville, Maryland. National Center for Health Statistics. See Appendix table IV-4.

Fewer than half of the pregnancies that occurred to unmarried women in 1991 resulted in a birth. About one in ten ended in miscarriage, and about half of the remainder - 46% - ended in induced abortion. The proportion ending in abortion has declined over the past decade; in 1980, 60% of nonmarital conceptions ended in induced abortion.

Unmarried women are far more likely than married women to end a pregnancy through abortion. In 1991, 7% of pregnancies to married women, compared with 46% of pregnancies to unmarried women, ended in abortion.

**Figure IV-12. Percent of pregnancies ending in abortion by marital status and race for women aged 15-44: United States, 1980 and 1991**

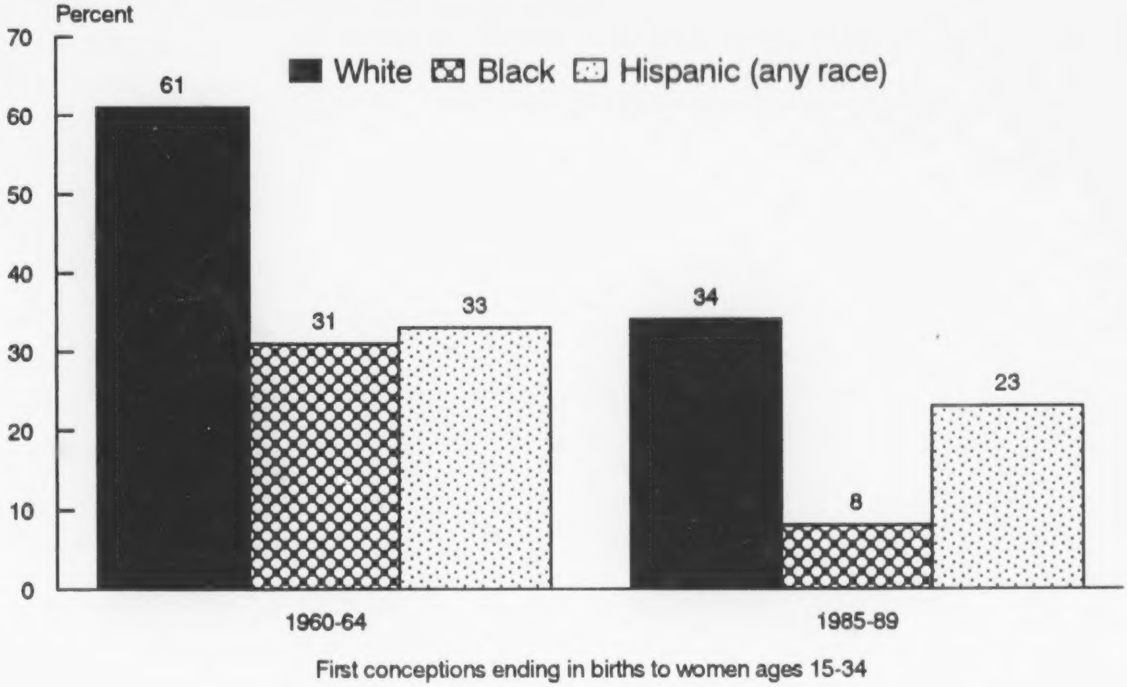


Source: Ventura et al. 1995. Trends in Pregnancies and Pregnancy Rates: Estimates for the United States, 1980-92. Monthly Vital Statistics Report, 43(11), Suppl. Hyattsville, Maryland. National Center for Health Statistics. See Appendix table IV-4.

Although the percent of pregnancies ending in abortion declined somewhat between 1980 and 1991 for married and unmarried women regardless of race, the most dramatic decline occurred among pregnancies to white unmarried women. In 1980, more than two-thirds (69%) of pregnancies to unmarried white women ended in abortion, the highest proportion of any group. By 1991, this proportion declined to 48%, similar to that for unmarried women of other races (44%).

Available evidence suggests that trends in abortion have played an important role in influencing the level and trend of nonmarital childbearing. Information on abortion rates for unmarried women is available for only a few points in time, so the impact of abortion on nonmarital fertility cannot be precisely measured. It is likely that rapid increases in the accessibility of legal abortion, and rising abortion rates, during the late 1960s and early 1970s helped to reduce nonmarital birth rates in most age groups. Abortion rates for all women leveled off and remained relatively stable during the early and mid-1980s, while nonmarital birth rates were increasing at a modest rate. Decreases in abortion rates among unmarried women are likely to be partly responsible for the much sharper increases in nonmarital birth rates during the late 1980s.

**Figure IV-13. Among women who conceived before marriage, percent marrying before birth of child: United States, 1960-64 and 1985-89**

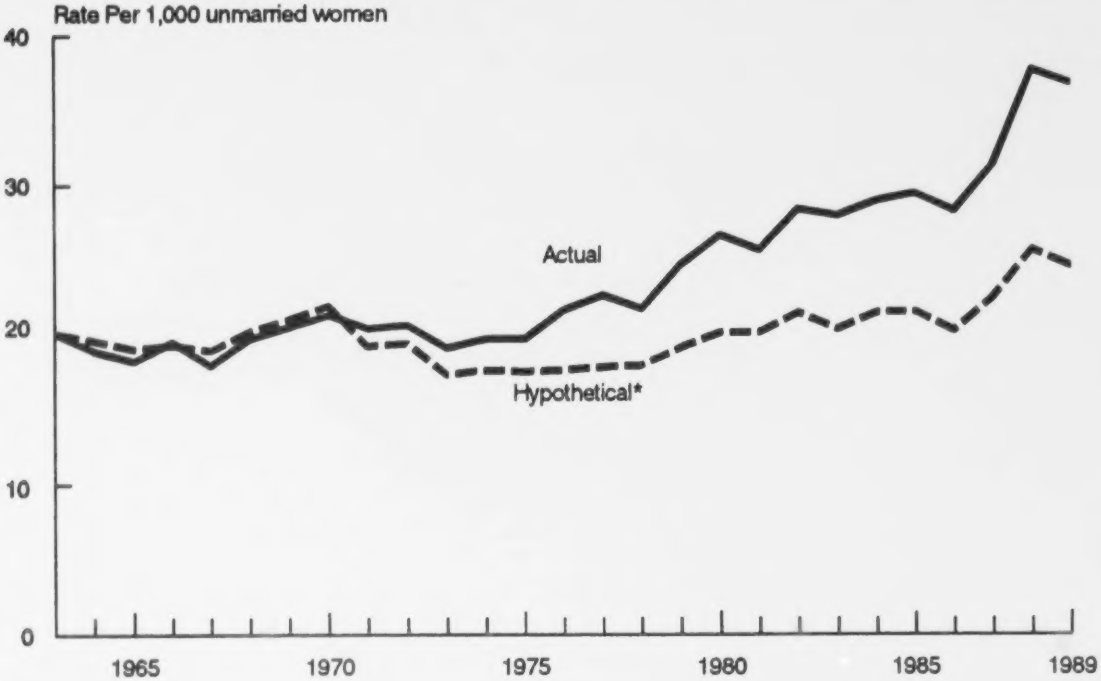


Source: Bachu A. 1993. Fertility of American Women: June 1990. Current Population Reports, Series P-20, No. 454, Washington, DC: US Government Printing Office. See Appendix table IV-6.

Increased nonmarital childbearing stems not only from changing behaviors and choices - such as having sex, using contraception, and choosing to end a pregnancy - that determine whether an unmarried women conceives and delivers a child, but also from changes in decisions about marriage that parallel progress through the stages of reproductive risk and childbearing. Earlier, we saw that the separation of sex and marriage had placed men and women at increased risk of nonmarital conception, often for extended periods of time. Important changes have occurred to separate **birth** from marriage as well, with the decline of "shotgun marriage," or marriage that occurs between a nonmarital conception and the baby's birth. Parallel declines have occurred in the relinquishment for adoption of babies born outside of marriage. Both changes indicate that when nonmarital pregnancy occurs and results in birth, women are increasingly choosing to parent their babies as unmarried mothers.[22]

In the early 1960s, 61% of white women who conceived a first birth before marriage married by the time the baby was born. By the late 1980s, this proportion had declined to 34%. Marriage between conception and birth also declined sharply among black women during the same time period (from 31 to 8%), and, to a lesser extent, among Hispanic women (from 33 to 23%).

**Figure IV-14. Actual and hypothetical rates of nonmarital fertility: United States, 1963-89**



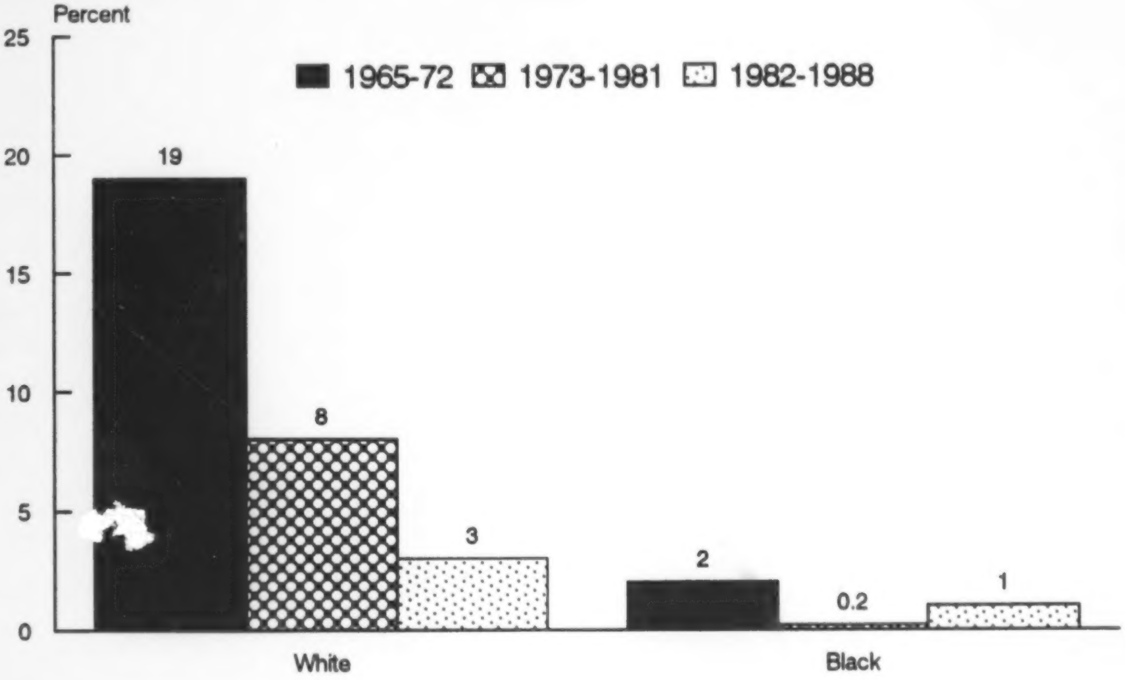
*Hypothetical nonmarital fertility rate would be the rate if pregnant unmarried women married before the birth of their child in the same proportions as in 1963.

Source: Morgan, SP et al. 1995. Education, Marital Status and the Changing Age Pattern of American Fertility. Paper presented at the Annual Meeting of the Population Association of America, San Francisco, April.

NOTE: The nonmarital fertility rate is defined here as births during each year per 1,000 women who were unmarried 9 months before the beginning of the year. These rates differ from those shown elsewhere in this report.

Researchers have demonstrated just how important these changing decisions about marriage are. Considering only those pregnancies ending in live birth, the rate of nonmarital birth would have increased only marginally between the early 1960s and the mid-1980s if unmarried pregnant women had continued to marry between conception and birth at the same rate as they did in 1963.[23] This means that, up until the mid-1980s, declines in marriage prior to birth for women carrying nonmarital pregnancies to term, and **not** changes in the propensity of unmarried women to conceive such pregnancies, largely accounted for increased nonmarital birth rates. As noted above, declines in the incidence of pregnancies **not** ending in live birth - pregnancies ending in abortion - also had an impact on nonmarital childbearing, especially among white women (see figure IV-11). The overall increase in nonmarital birth rates resulted from the balance among trends in pregnancy rates, abortion, and marriage between conception and birth.

**Figure IV-15. Among children born to never-married women aged 15-44, percentage who were relinquished for adoption, by race and year of birth: United States**

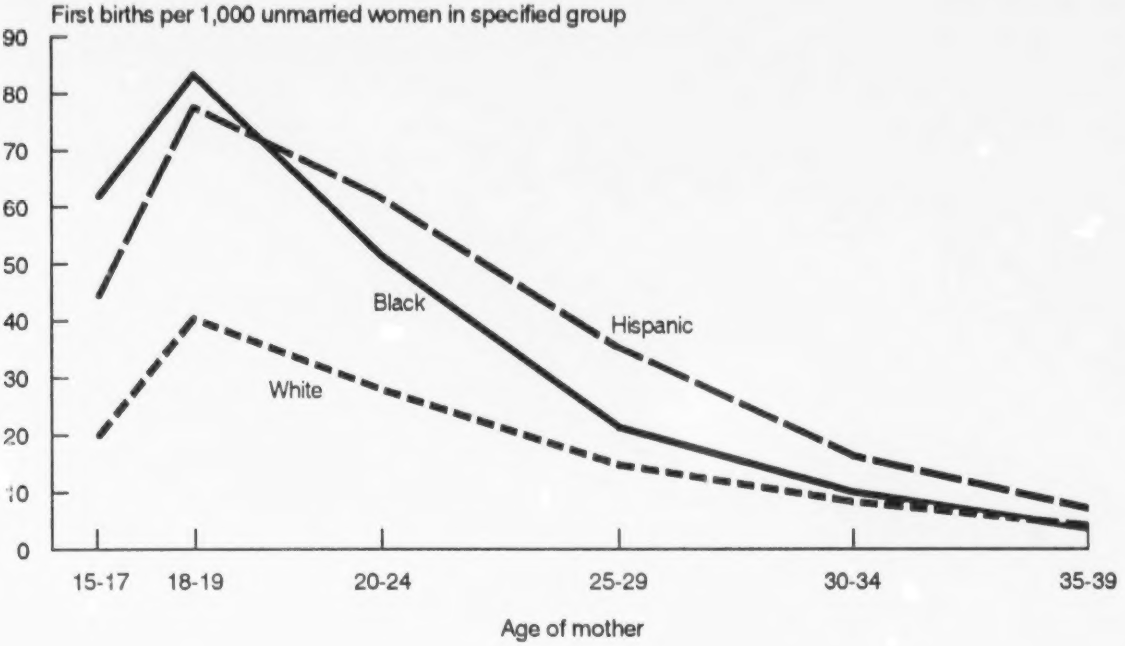


Source: Bachrach, C. et al. 1992. Relinquishment of Premarital Births: Evidence from National Survey Data. Family Planning Perspectives 24(1):27-33.

Traditionally, adoption provided an alternative to marrying the baby's father, especially for white unmarried mothers. Adoption occurs **after** a nonmarital birth has occurred, and therefore does not affect nonmarital birth rates. However, it does make nonmarital childbearing less visible, by interrupting the formation of families headed by unmarried mothers. Before 1973, about one in five premarital births to white women were relinquished for adoption; by the late 1970s, this proportion had shrunk to less than one in ten, and during the period 1982-88, to one in thirty. Relinquishment for formal adoption has always been low among black unmarried mothers, as extended family members have traditionally played an important role in helping to raise children born outside of marriage. Adoption appears to be a rare choice among Hispanic women as well.

## V. Next Steps: Marriage and Childbearing after a First Nonmarital Birth

**Figure V-1. First birth rates for unmarried women by age, race, and Hispanic origin: United States, 1993**



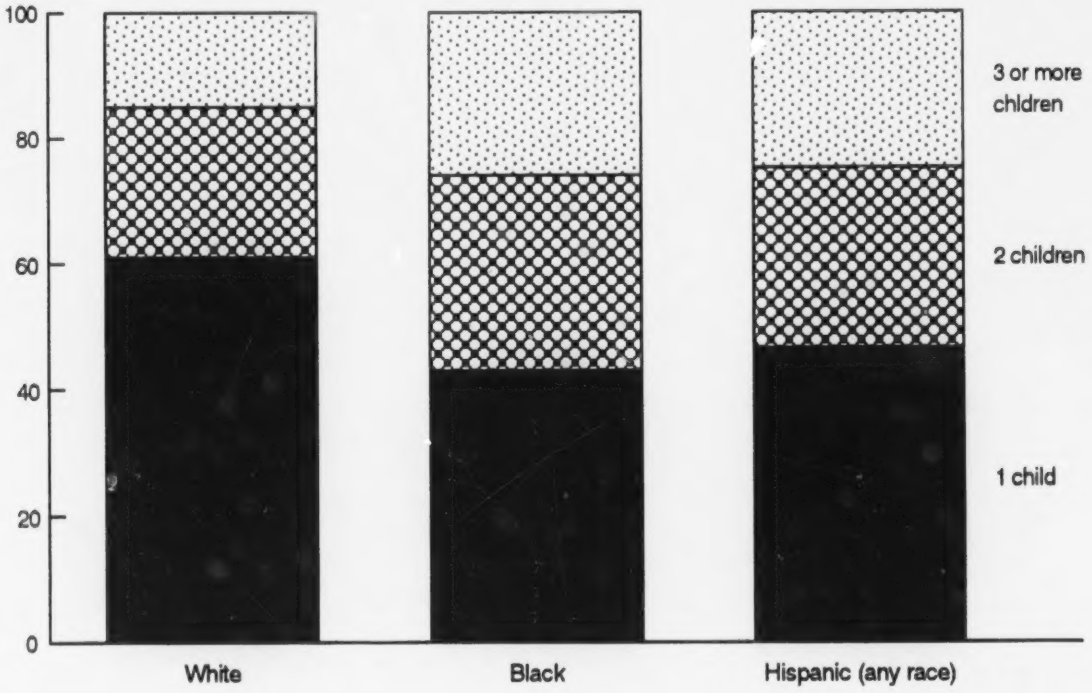
(1) Persons of Hispanic origin may be of any race.

Source: Ventura, SJ, and TJ Mathews. Special tabulation of 1993 birth certificate data. 1995. See Appendix table V-1.

An unmarried woman's risk of becoming a single mother for the first time is highest in the late teens (18-19), and declines after age 20. What happens after a first nonmarital birth is still incompletely understood. Whether a first nonmarital birth is followed by others depends on many factors: whether the woman marries, the steps she takes to prevent subsequent births, and how pregnancies are resolved, whether in a birth or abortion.

Considering all births that occurred to unmarried women in 1993, slightly more than half (52%) were second or higher order births (see Appendix Table V-1). However, not all these births were "repeat" nonmarital births: in some cases, they may have occurred to mothers who were married at first birth, and subsequently divorced.[24]

**Figure V-2. Distribution of never-married mothers aged 15-44 by number of children and mother's race: United States, 1992**

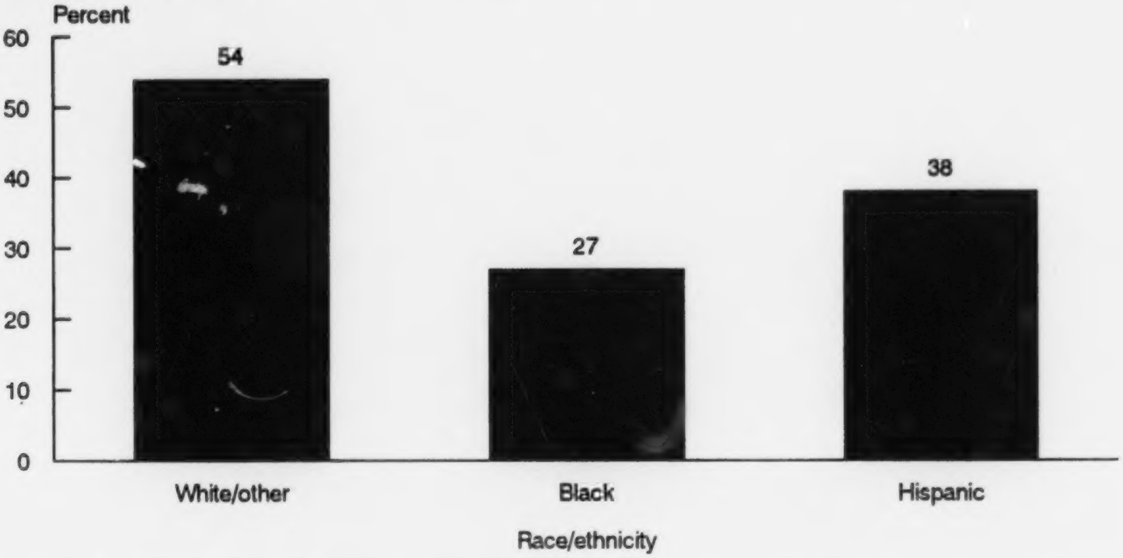


Source: Bachu, A. 1993. Fertility of American Women: June 1992. US Bureau of the Census. Current Population Reports, P20, No. 470. Washington, DC: US Government Printing Office. See Appendix table V-2.

Some unmarried first-time mothers do go on to have additional births outside of marriage. Among the four million never married mothers aged 15-44 in 1992, nearly half (48%) had two or more births, and one-fifth (21%) had three or more, according to the Current Population Survey. The proportion with three or more premarital births was higher among black and Hispanic women (26% and 25%, respectively) than among white women (15%). However, the experience of these women may be different from the experience of mothers who do marry after having one or more nonmarital births.

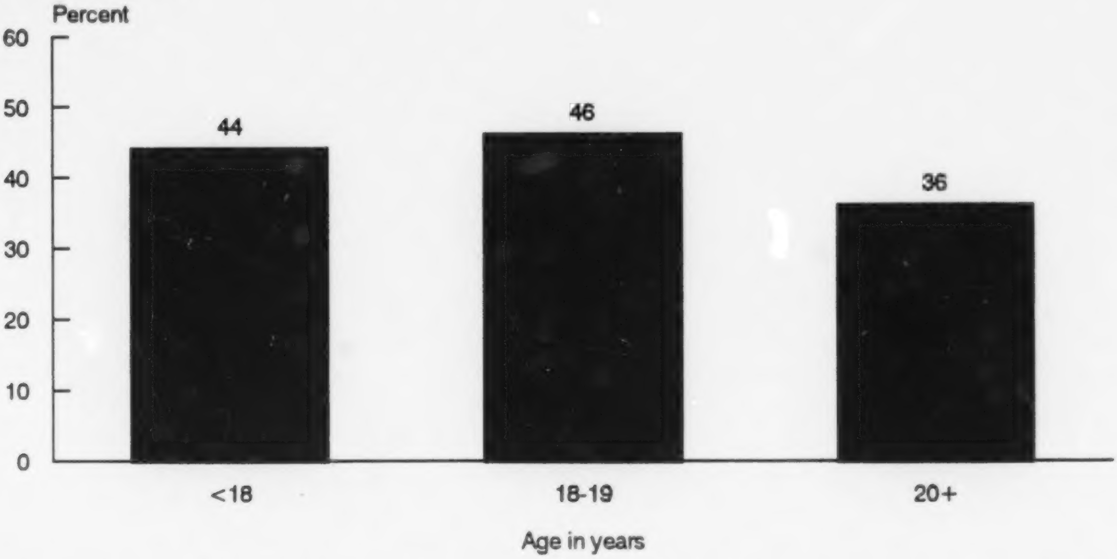
## V. Next Steps: Marriage and Childbearing after a First Nonmarital Birth

**Figure V-3. Percent marrying within 5 years of a premarital first birth, by race/ethnicity: United States, 1979-92**



Source: Danziger S, Kaye K, Holcomb P, Koff E and Koutroumanes S. Births Outside of Marriage in the US: Trends, Characteristics and Welfare Receipt. Data refer to women aged 14-21 in 1979 followed through 1992.

**Figure V-4. Percent marrying within 5 years of a premarital first birth by age: United States, 1979-92**

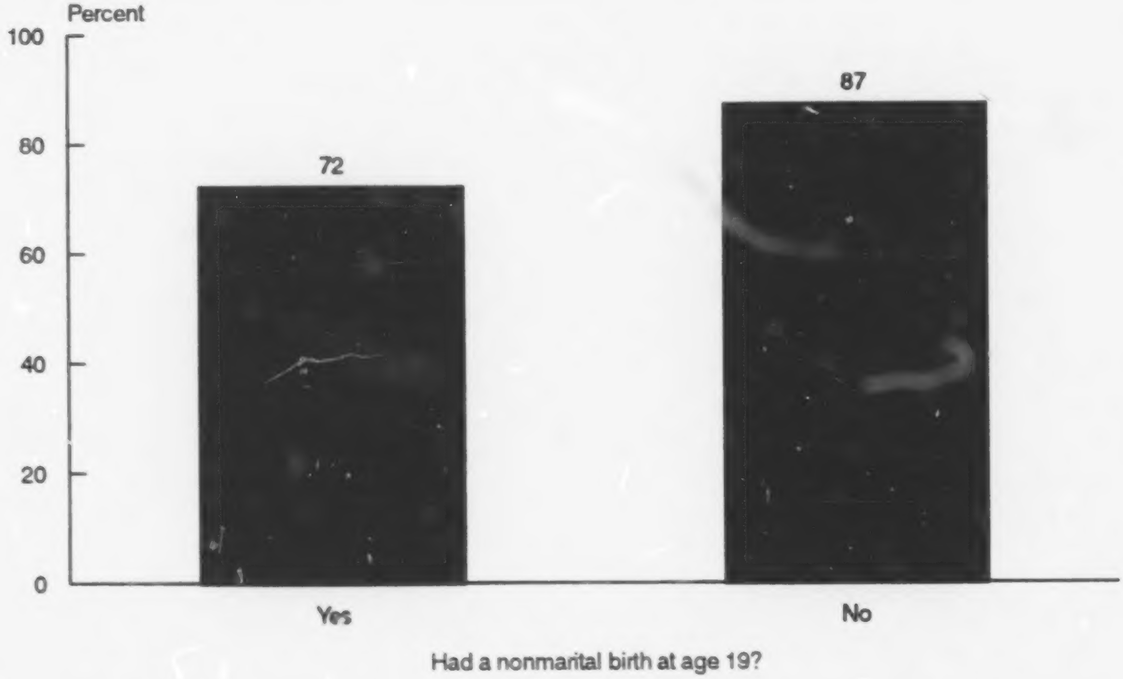


Source: Danziger S, Kaye K, Holcomb P, Koff E, and Koutroumanes S. Births Outside of Marriage in the US: Trends, Characteristics and Welfare Receipt. Data refer to women aged 14-21 in 1979 followed through 1992.

**Figures V-3 and V-4.**

Detailed survey data on women's marriage and fertility histories provide a clearer picture of what happens after a first nonmarital birth. One study of women aged 14-21 in 1979 who had a first premarital birth before 1992 showed that about 2 in 5 of those women married within 5 years after the birth. Marriage within 5 years was more likely for white than black women, and more likely if the woman was in her teens when she gave birth. The data do not tell us whether the woman married the baby's father.

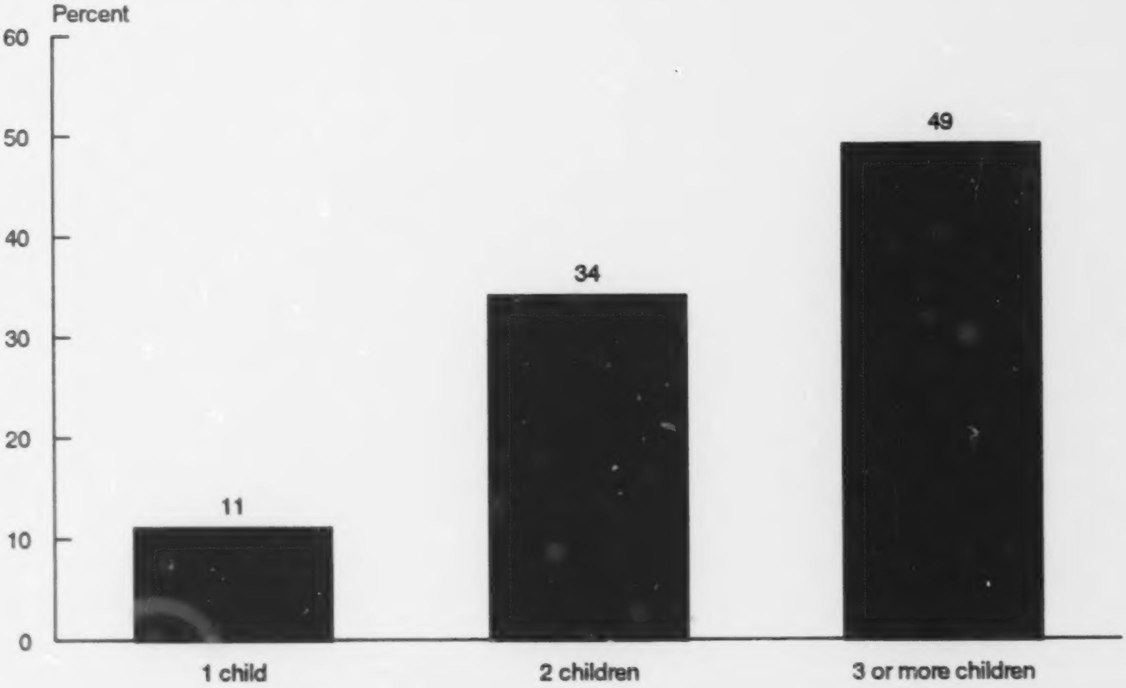
**Figure V-5. Among childless never-married women at age 19, percent married by age 35: United States**



Source: Bennett NG, Bloom DE, and Miller CK. 1995. The influence of nonmarital childbearing on the formation of first marriages. Demography 32(1):47-62.

Other research shows that having a nonmarital birth may actually decrease a woman's chance of eventually marrying.[25] The odds of marrying are high in the period just following the birth, but, in the long run, women who give birth before marriage are less likely to marry. For example, one study followed women who were childless and had never married by their nineteenth birthday. Among those who avoided having a nonmarital birth in the following year, 87% were married by the age of 35. Among those who did become unmarried mothers at age 19, 72% married by age 35.

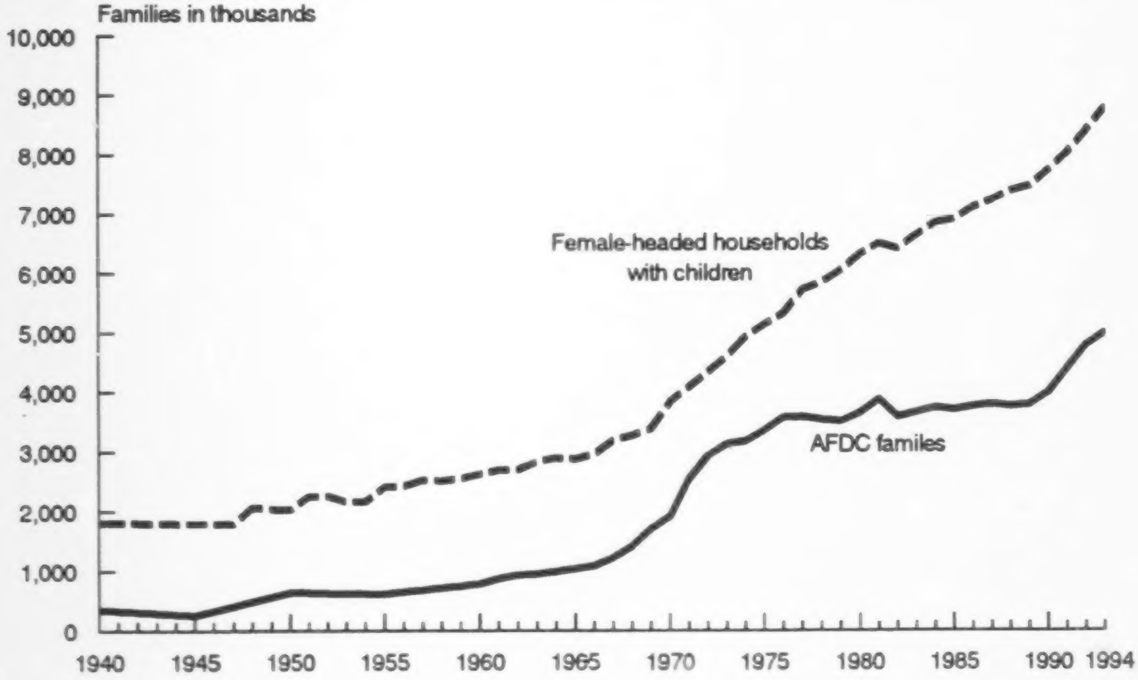
**Figure V-6. Percent of unmarried mothers aged 15-44 sterilized for contraception by number of children: United States, 1988**



Source: National Center for Health Statistics. National Survey of Family Growth, Cycle 4, 1988.

A substantial proportion of unmarried women who have had children limit subsequent births by adopting permanent methods of birth control. In 1988, 34% of unmarried women who had borne two children and 49% of those who had borne three or more children had been sterilized for contraceptive purposes.

**Figure VI-1. Trends in AFDC families and female-headed households: 1940-94**

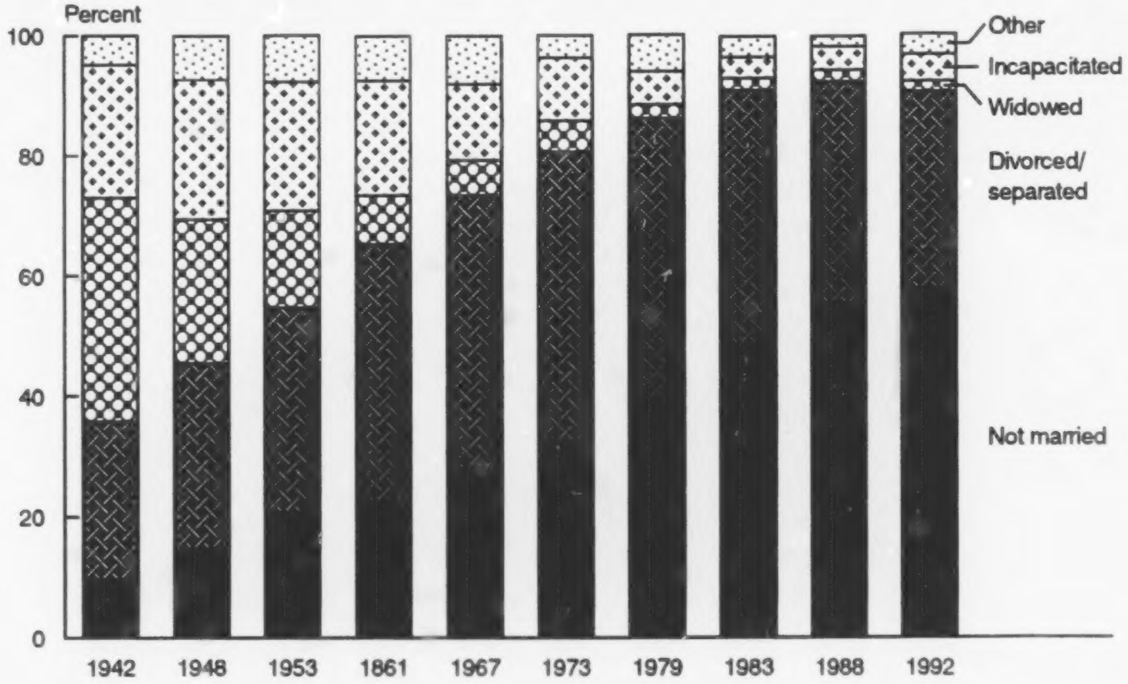


NOTE: Shows average monthly AFDC families and female -headed households with children under age 18.

Source: AFDC Families from Social Security Bulletin and ACF/HHS data as cited in 1994 Green Book. Female-Headed Households from US Bureau of the Census. 1993. Poverty in the United States, 1992. Current Population Reports, P60, No. 185.

Between 1940 and 1965, the number of AFDC families and female headed households increased at a similar rate. While the number of female headed households with children continued to rise substantially between 1970 and 1985, there was little growth in the number of AFDC families and the gap between AFDC families and female headed households widened significantly. Between 1986 and 1993, AFDC families and female headed households again rose at similar rates.

**Figure: VI-2. Reason for AFDC eligibility: United States, selected years 1942-94**



NOTE: Excludes participants in the AFDC-UP program which started in 1970.

Source: AFDC Families from Social Security Bulletin and ACF/HHS data as cited in 1994 Green Book.

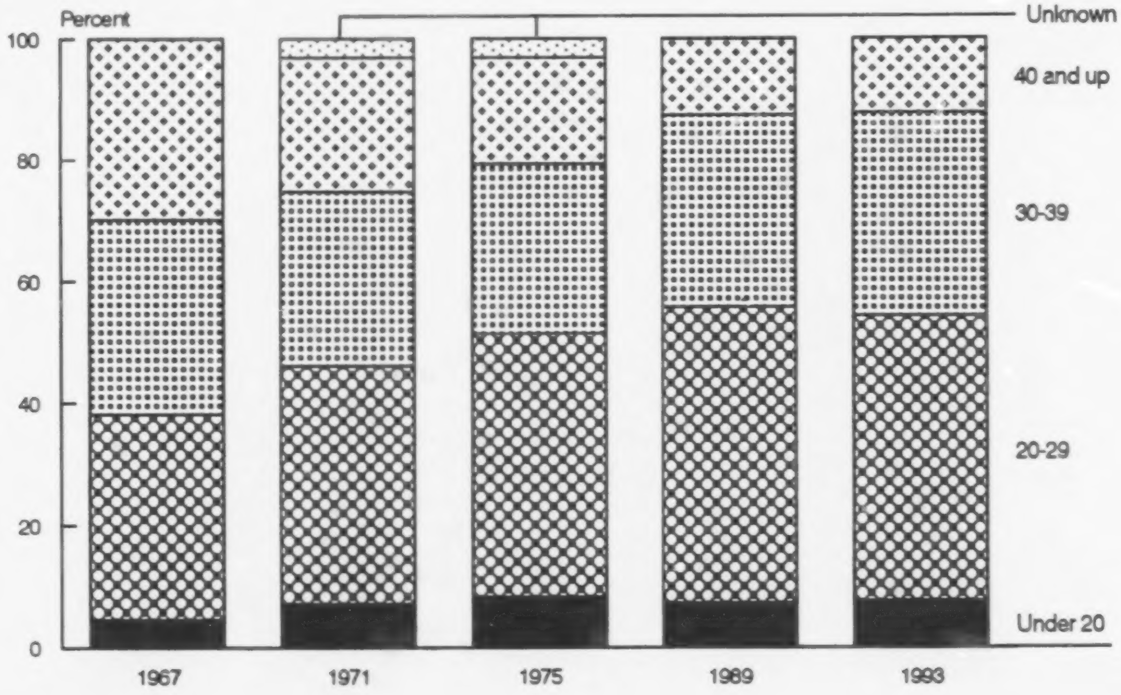
It is often thought that AFDC began as a program for poor widows with children and that the proportion of AFDC mothers who are unmarried increased much later. While it is true that unmarried mothers have made up an increasingly larger share of the AFDC caseload and the program has ceased serving widows almost entirely, these trends began in the early years of the program. As early as 1942, just 37% of AFDC children were in families headed by widows and since the 1960s, AFDC children in widowed families represent less than 10% of all AFDC children. The proportion of children receiving AFDC due to a parent's incapacitation has also decreased substantially -- from 22% in 1942 to 5% in 1992. The proportion of AFDC children in families headed by divorced and separated women (with and without a legal court order) rose steadily between 1946 (26%) and 1973 when these children represented about half of all AFDC children (49%). The share of AFDC children living in families headed by unmarried mothers has increased steadily -- from 10% to 58% in 1992.

Several different factors are responsible for the changes in the composition of families receiving AFDC over time. Changes in lows and policies regarding eligibility -- excluding unmarried single parent families and/or required long

**Figure VI-2. Reason for AFDC eligibility: United States, selected years 1942-94**

waiting periods to establish the continued absence of the father; making the program available on a state-wide basis in accordance with the law; transferring single mother families from state general assistance rolls to AFDC--account for much of the early increase in unmarried and divorced/separated families. As discussed earlier, the growth in divorce and nonmarital births also contributed to the increasing share of non-widowed female headed families receiving AFDC. The proportion of widowed families decreased as Old Age and Survivors Insurance (OASI) under the Social Security Act was expanded and benefits raised. Widowed families increasingly became covered and assisted through OASI rather than the AFDC program. Similarly, the creation and expansion of a separate disability insurance program (DI) under the Social Security Act resulted in a declining share of AFDC recipients receiving benefits for reasons of incapacitation.

**Figure VI-3. Age distribution of adult females receiving AFDC: United States, selected years 1967-93**

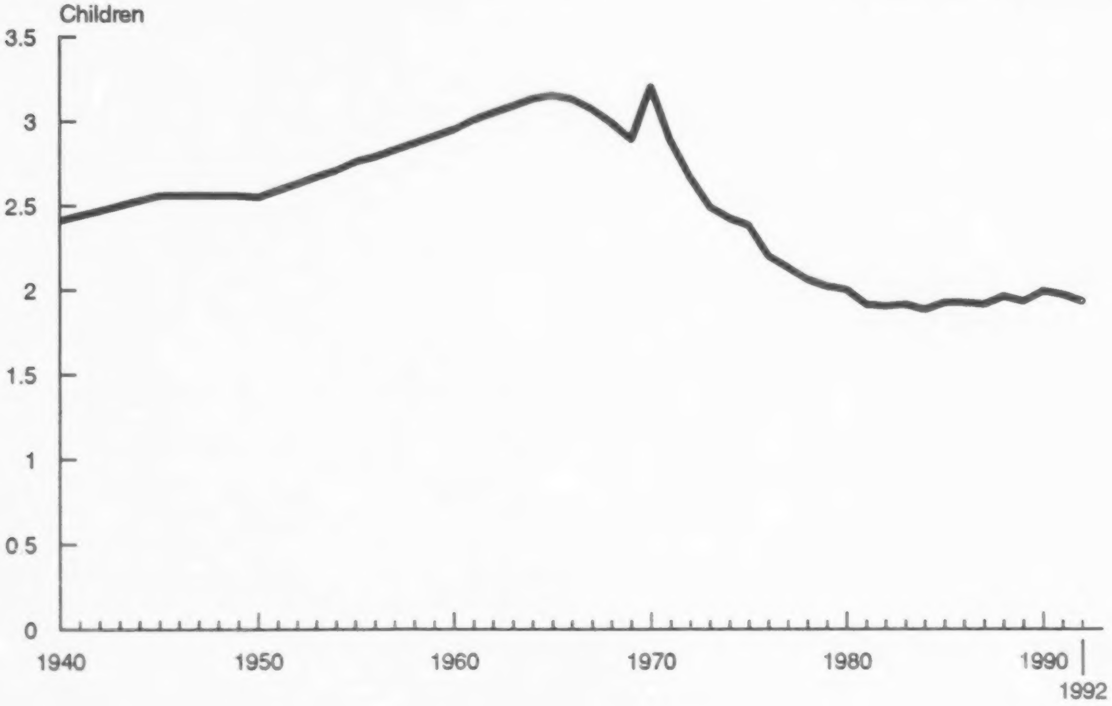


Source: Administration for Children and Families, as cited in the 1994 Green Book and AFDC Quality Control Data.

The proportion of adult female AFDC recipients under age twenty rose from 5% to 7% between 1967 and 1971 and then remained relatively stable through 1993. There was a significant increase in the proportion of those aged 20 through 29 from 34% in 1967, to a high of 48% in 1989. Compensating for that change, the proportion of females of 40 years or older decreased between 1967 and 1993, from 30 to 12%. The group between ages 30 and 39 remained relatively stable within a range of 29 and 34%.

It is important to point out that while relatively few mothers on AFDC are under age 20, a significant portion of mothers on AFDC had their first birth before age 20. In 1991, approximately 60% of AFDC mothers under age 30 had their first birth prior to age 20. However, this percent has been falling, from 64% in 1975 and 63% in 1984.

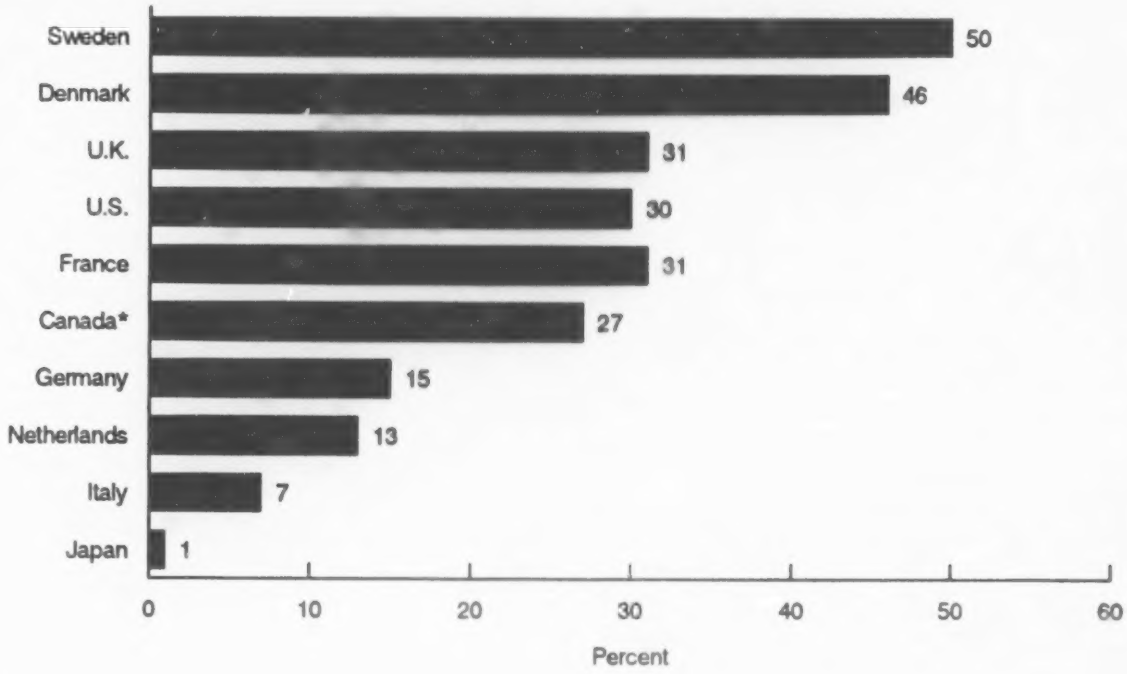
**Figure VI-4. Average number of child recipients per AFDC family: United States, 1940-92**



Source: Administration for Children and Families, as cited in the 1994 Green Book, and Historic Statistics.

The average number of child recipients per AFDC family increased from 2.4 to 3.2 between 1940 and 1970 and then fell to 1.9 by 1982. Since then, it has remained relatively stable at approximately that average.

**Figure VII-1. Percent of births to unmarried women by country, 1992**

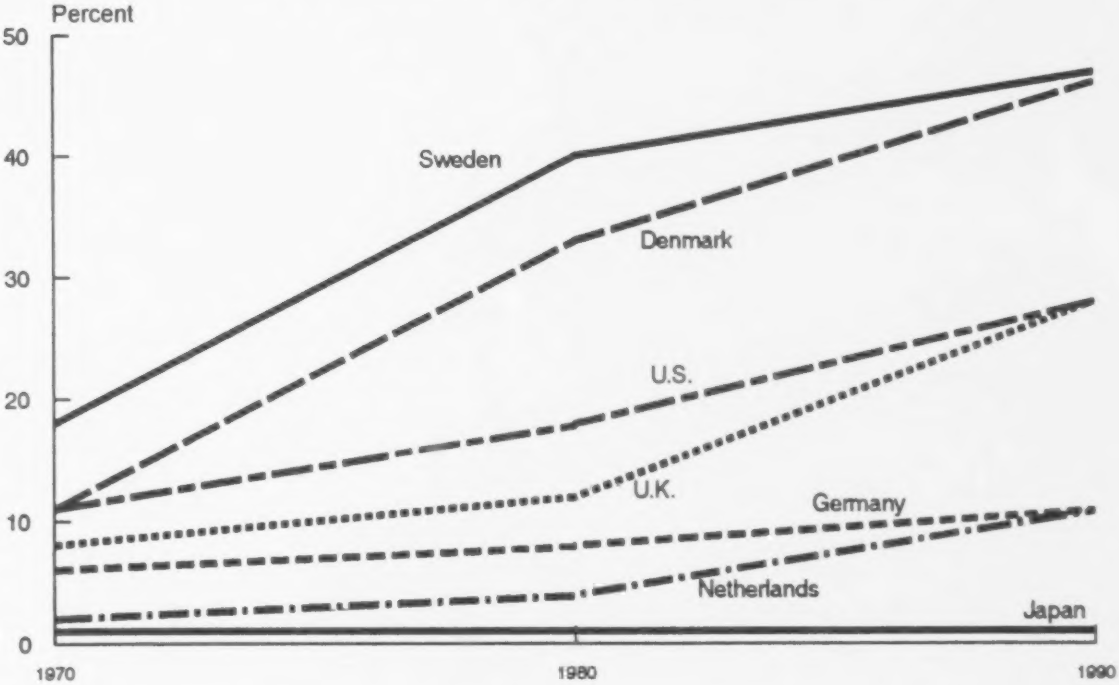


* 1991 data

Sources: Council of Europe. Recent Demographic Developments in Europe, 1993. Council of Europe Press. 1994; Statistics and Information Department. Ministry of Health and Welfare. Vital Statistics of Japan, 1992; Central Agency for Austrian Statistics. Demographic Yearbook, Austria, 1992; Belle M, McQuillan K. Births Outside Marriage: A Growing Alternative. Canadian Social Trends, Summer 1994. Statistics Canada..

The United States does not lead the trend in increasing nonmarital births internationally. In 1992, the percent of births to unmarried women in the United States was 30%, but was 46-50% in Sweden and Denmark. Other industrialized nations, such as France and the United Kingdom, have a similar proportion of births to unmarried women, but some have percentages that are much lower (e.g. the Netherlands and Japan). The United States does lead other industrialized countries in the rate of teen childbearing: even in countries with higher proportions of nonmarital births than in the United States, proportions of teen births are much lower.

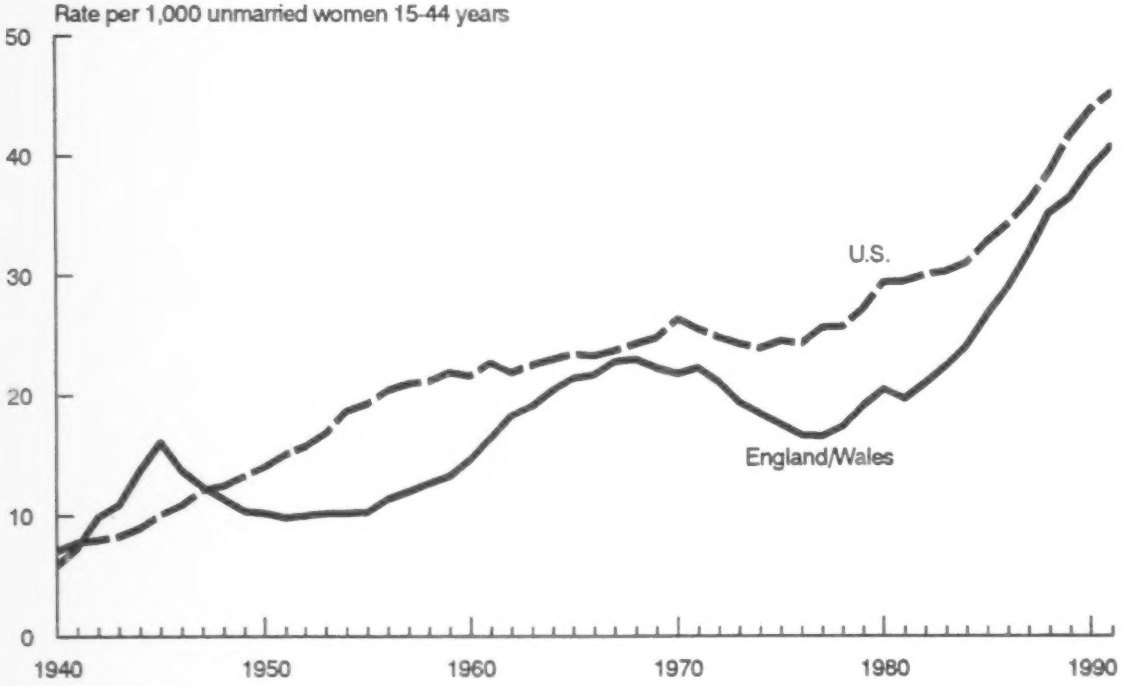
**Figure VII-2. Percent of births to unmarried women by country: 1970-90**



Source: US Bureau of the Census. 1994. Statistical Abstract of US. 1994. US Department of Commerce. Data for Germany are for former West Germany prior to 1991.

Many countries experienced as large an increase in the percent of births to unmarried mothers as did the United States from 1970 to 1990. Only in Japan has the percent remained relatively stable.

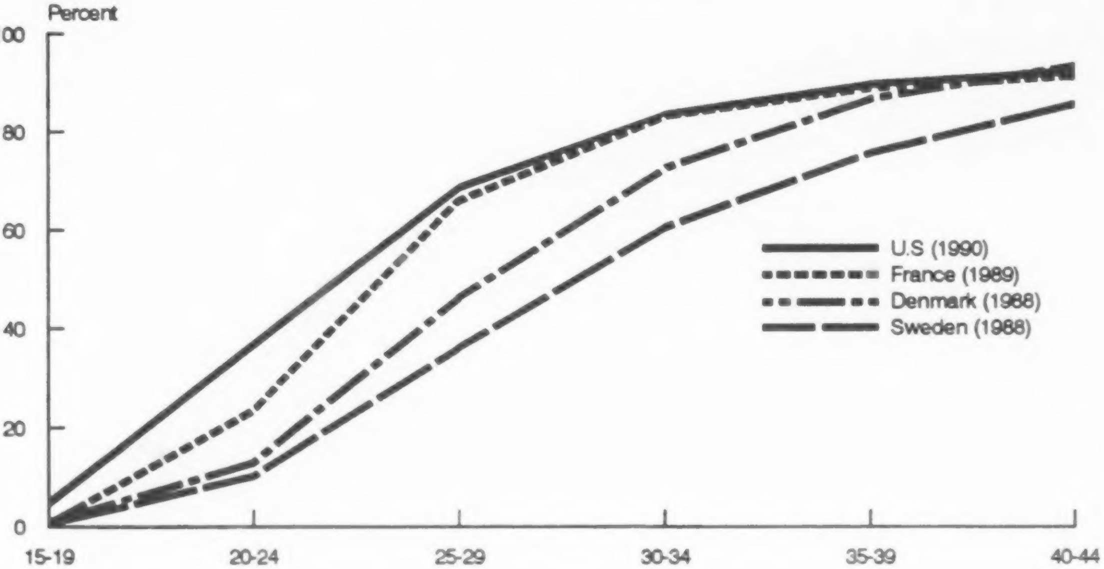
**Figure VII-3. Birth rates for unmarried women in the United States and England and Wales, 1940-91**



Source: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics, Vital and Health Statistics 21(53). 1995. Office of Population and Surveys, Review of Registrar General. Birth Statistics, 1993.

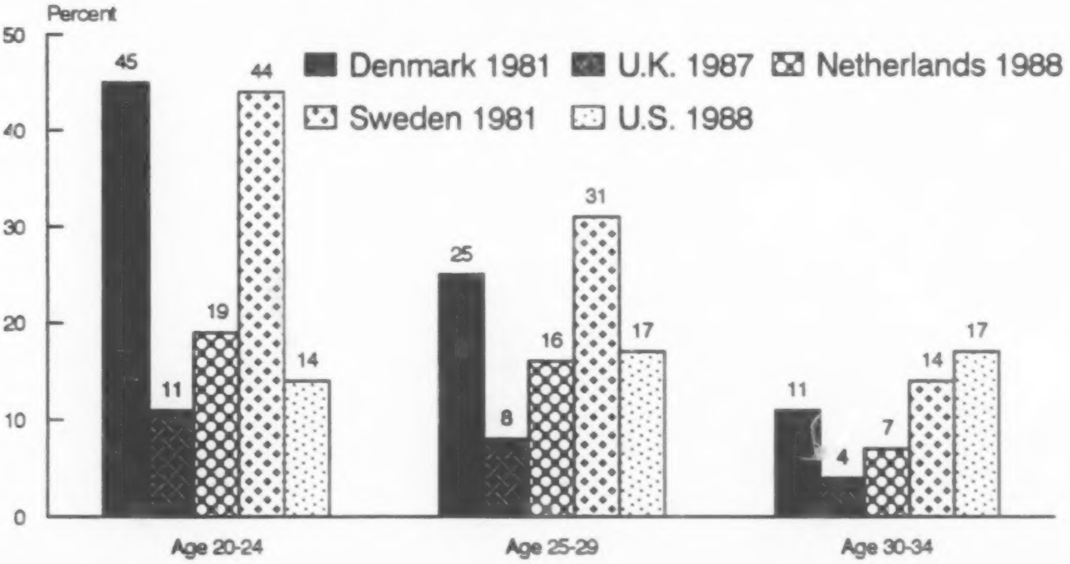
Trends in nonmarital childbearing rates in the United States and England and Wales have been remarkably similar for more than three decades. Since declining in the 1970s, rates for both countries have risen steadily, the United States beginning in the late 1970s, and England and Wales beginning about 1981. The rates in 1991 were 45.2 per 1000 unmarried women for the United States compared with 40.7 per 1000 unmarried women for England and Wales.

**Figure VII-4. Percent of women married, by age and country**



Source: UN Department for Economic and Social Information and Policy Analysis. UN Demographic Yearbook, 1990

**Figure VII-5. Percent of unmarried women cohabiting by age for selected countries**

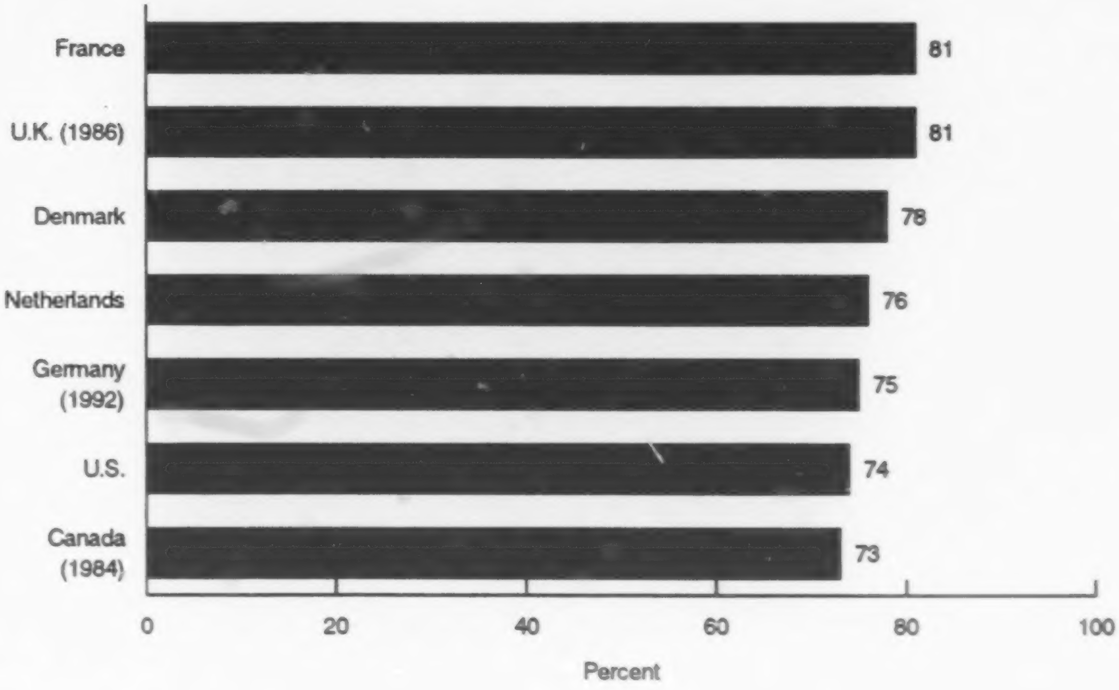


Source: Roussel, L. 1994. Fertility and Family. European Population Conference Proceedings, Volume 1. New York: United Nations. Bumpass, LL and JA Sweet. 1995. Cohabitation, Marriage and Union Stability. CDE Working Paper 65. Madison: University of Wisconsin.

**Figures VII-4 and VII-5.**

International changes in marriage patterns and living arrangements have increased exposure to the risk of a nonmarital birth by increasing the number of years couples are sexually active before or outside of marriage. In most cases, these changes are more pronounced abroad than in the United States. From 1950 to 1989, the average age of women marrying for the first time rose in the United States from 21 to 26 years. However, in Sweden, it rose from 22 to 30 years.[26] A higher percentage of women in the United States eventually marry in comparison to Sweden, Denmark, and France. Cohabitation is increasingly common in the United States, but when compared to some other developed countries, levels in the United States fall far short at ages when nonmarital childbearing is most prevalent (20-29). At ages 20 to 24, 14% of unmarried women in the United States are currently cohabiting, as opposed to 45% and 44% respectively, for Danish and Swedish unmarried women. At ages 25 to 29, 17% of unmarried women in the United States are cohabiting, whereas 31% of Swedish unmarried women cohabit. By age 30-34, women in the United States are as likely to be currently living with a partner as are Swedish women (14%), and somewhat more likely than Danish women to do so (11%).

**Figure VII-6. Percent of couples using contraceptives, selected countries, 1988**



NOTE: Age ranges vary somewhat by country.

Source: UN Department for Economic and Social Development. 1994. UN World Contraceptive Use, 1994.

Adults in the United States are less likely to use contraception than are adults in many other industrialized countries. Contraception is more prevalent among couples with higher exposure to nonmarital childbearing (e.g. couples in Northern Europe, France, and the United Kingdom). In 1988, 81% of all English couples of childbearing age (16-49) used contraception, compared with 74% of couples in the United States aged 15-44.

## Technical Notes

1. This report draws on several sources of data, described briefly in this note. Vital statistics data on births to unmarried mothers are based on 100% of the birth certificates from all States and the District of Columbia (National Center for Health Statistics, in preparation; Ventura, 1995; Ventura et al., 1994). The data are provided to the National Center for Health Statistics (NCHS) by state health departments. Birth certificate data are available for every year and tabulations of nonmarital births including birth rates and percents by various characteristics including maternal age, race, Hispanic ethnicity, parity, and education of the mother, can be provided for states and local areas, an important advantage. In addition to these demographic characteristics, a number of maternal and infant health characteristics are also available. Birth certificate data on nonmarital births are limited in some important respects. There is no information on mother's marital history, and information on other measures of socioeconomic status, aside from mother's educational attainment, is not available. Finally, information on the father is not available for more than half of the nonmarital births each year. Current Population Survey (CPS) data is collected by the U. S. Bureau of the Census every month with a sample of about 60,000 households in the civilian noninstitutional population of the United States. The survey is primarily designed to provide information on labor force participation, but covers a broad range of social, economic and demographic characteristics.. This report draws on detailed information collected in March of every year on the marital status of individuals, on information collected in June on fertility, and on detailed marital and fertility histories collected once every five years with funding from the National Institute of Child Health and Human Development (Bachu, 1991; 1993; Saluter, 1994). The CPS data provide greater detail on the socioeconomic characteristics of mothers and families, but do not provide data on maternal and infant health characteristics. Estimates of nonmarital childbearing are based on mother's own reports of children born to them rather than official records. Comparisons of CPS and vital statistics data on births in the United States show a high level of agreement on trends, although exact levels of rates and proportions out-of-wedlock may vary (Jones et al, 1985). Other national population surveys that provide information about nonmarital childbearing include the National Survey of Family Growth, conducted on a periodic basis by the National Center for Health Statistics (Mosher and McNally, 1990), the National Survey of Families and Households, conducted in 1987-88 and 1992-94 by researchers at the University of Wisconsin (Bumpass and Sweet, 1989a; 1995), the National Longitudinal Survey of Youth, conducted by the Bureau of Labor Statistics, and the National Survey of Health and Social Life, conducted in 1993 by researchers at the University of Chicago (Laumann, et al., 1994).

2. Births to unmarried mothers are identified by a question on the birth certificates of nearly all states, asking if the mother is married (at birth, conception, or any time between). The birth is classified as marital if the question is answered "yes". A woman is legally married even if she is separated, but is no longer legally married when the divorce papers are signed. In the few states which do not report mother's marital status directly (six states in 1992), it is determined from a comparison of the parents' and child's surnames, with

specific modifications of this procedure in each of the states. In many states, the father's name cannot be entered if the mother is not married (National Center for Health Statistics, 1987).

The accuracy of information provided by the marital status item has been evaluated periodically. A recent evaluation of the item was conducted in connection with the 1988 National Maternal and Infant Health Survey. Entries on the birth certificate were compared with entries on the mother's questionnaire. That study found an overall agreement on marital status of 94% for black mothers and 96% for white mothers. It is possible that the accuracy has varied over time as public attitudes on nonmarital childbearing have changed. It is also likely that variation in accuracy exists among different segments of the population (Schoendorf, et al., 1993).

3. Men as well as women are involved in nonmarital childbearing. However, like most measures of childbearing, nonmarital fertility rates are usually available only for women. Data limitations preclude the presentation of fertility trends and differentials for unmarried men.

4. During the mid-to-late 1960s, the rate for all unmarried women continued to rise even though rates for most age groups declined. This is a result of the changing age composition of the unmarried population during this period. As marriage was increasingly delayed, the proportions of unmarried women at ages where nonmarital birth rates are high increased, driving up the average birth rate for all unmarried women.

5. Landry and Forrest, 1995.

6. Smith and Cutright, 1988.

7. U. S. Bureau of the Census, Current Population Reports, Series P-20, various years.

8. National Center for Health Statistics, 1991.

9. Bumpass and Sweet, 1989b. A rough, but more recent, estimate of the percent of nonmarital births that are born to previously married women is provided by data on births occurring in the 12-month period preceding the June, 1992 Current Population Survey (Bachu, 1993). Among unmarried women reporting a birth in the past 12 months, 27% were separated, widowed or divorced.

10. Bennett, Bloom, and Craig, 1989.

11. Bumpass and Sweet, 1989a.

12. Bumpass, 1994.

13. Bennett, Blanc, and Bloom, 1988.

14. Bumpass and Sweet, 1995.

15. Bumpass and Sweet, 1995.

16. Haurin, 1995.

17. See Smith, Morgan, and Koropeckyj-Cox, 1995 for a description of the methods used to derive the estimates and a complete discussion of the findings. See also Appendix B.

18. Alan Guttmacher Institute, 1994. The median age at first intercourse and first marriage are calculated as the ages by which 50% of the female or male population in 1988 had experienced the event.

19. Differences in the frequency of intercourse among married, unmarried, and cohabiting women reflect differences in the ages of women and their partners and differences in the duration of relationships as well as the effects of marital status and cohabitation per se. For example, one study found that when factors such as age and duration of relationship were taken into account, the difference in frequency of sex between cohabiting and married women was no longer statistically significant (Bachrach, 1987).

20. Women "exposed to the risk of pregnancy" are defined to include those who have had sexual intercourse in the past three months, are neither pregnant nor postpartum, and who are either nonsterile or sterile because of a contraceptive operation. Women who are contraceptively sterile are included because they would be "at risk" were it not for the sterilization.

21. Alan Guttmacher Institute, 1991.

22. Although our discussion examines decisions about abortion and birth separately from decisions about marriage and parenting, it is likely that these decisions are strongly interdependent, and are probably made simultaneously by many pregnant women.

23. Morgan, Offutt, and Rindfuss, 1995. See also Parnell, 1994.

24. Vital statistics data contain no information on mother's marital history, thus precluding the ability to distinguish whether previous births to women having nonmarital second- and higher-order births were also born outside of marriage.

25. Bennett, Bloom, and Miller, 1995; Lillard, Panis, and Upchurch, 1994.

26. United Nations, 1992.

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## Appendix A: Data Tables

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## Table I-1. Number of births to unmarried women by age of mother and race: United States, 1940 and 1950-93

| Year and race | All ages | Age of mother | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Under 15 years | 15-19 years | | | | | | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
| | | | Total | 15 years | 16 years | 17 years | 18 years | 19 years | | | | | |
| ALL RACES | | | | | | | | | | | | | |
| Reported/Inferred[1] | | | | | | | | | | | | | |
| 1993 | 1,240,172 | 11,467 | 357,432 | 26,153 | 50,689 | 75,370 | 97,450 | 107,770 | 438,538 | 233,776 | 132,263 | 55,570 | 11,126 |
| 1992 | 1,224,876 | 11,161 | 353,878 | 25,459 | 49,021 | 74,103 | 96,009 | 109,286 | 435,727 | 233,467 | 127,982 | 52,447 | 10,214 |
| 1991 | 1,213,769 | 10,968 | 357,483 | 25,083 | 49,049 | 74,039 | 98,118 | 111,194 | 429,094 | 234,593 | 123,901 | 48,353 | 9,377 |
| 1990 | 1,165,384 | 10,675 | 349,970 | 24,068 | 46,309 | 72,021 | 95,961 | 111,611 | 403,873 | 229,991 | 118,200 | 44,149 | 8,526 |
| 1989 | 1,094,169 | 10,612 | 337,268 | 23,358 | 46,194 | 71,134 | 94,815 | 101,767 | 378,122 | 215,477 | 106,344 | 39,030 | 7,316 |
| 1988 | 1,005,299 | 9,907 | 312,499 | 22,456 | 44,101 | 69,580 | 85,659 | 90,703 | 350,905 | 196,365 | 94,874 | 34,408 | 6,341 |
| 1987 | 933,013 | 9,583 | 292,958 | 22,005 | 44,515 | 64,220 | 78,338 | 83,880 | 331,257 | 179,257 | 84,186 | 30,271 | 5,501 |
| 1986 | 878,477 | 9,415 | 280,720 | 22,248 | 41,625 | 59,618 | 75,493 | 81,736 | 316,188 | 165,662 | 74,928 | 26,967 | 4,597 |
| 1985 | 828,174 | 9,386 | 270,922 | 20,930 | 39,630 | 58,371 | 72,934 | 79,057 | 300,365 | 152,024 | 67,315 | 24,038 | 4,124 |
| 1984 | 770,355 | 9,075 | 261,104 | 19,945 | 38,763 | 56,647 | 70,175 | 75,574 | 279,192 | 136,956 | 59,261 | 20,916 | 3,851 |
| 1983 | 737,893 | 8,816 | 261,260 | 20,078 | 39,356 | 57,191 | 70,716 | 73,919 | 265,579 | 126,519 | 53,884 | 18,206 | 3,629 |
| 1982 | 715,227 | 8,720 | 260,626 | 20,142 | 39,750 | 57,804 | 70,496 | 72,434 | 257,473 | 118,954 | 49,559 | 16,420 | 3,475 |
| 1981 | 686,605 | 8,589 | 259,239 | 20,554 | 40,173 | 57,881 | 69,056 | 71,575 | 246,919 | 109,174 | 45,300 | 14,281 | 3,103 |
| 1980 | 665,747 | 9,024 | 262,777 | 21,908 | 41,386 | 58,606 | 69,173 | 71,704 | 237,265 | 99,583 | 40,984 | 13,187 | 2,927 |
| Estimated[2] | | | | | | | | | | | | | |
| 1980 | 643,400 | 9,200 | 262,400 | 22,200 | 41,700 | 58,800 | 68,800 | 70,900 | 229,900 | [illegible] | 36,000 | 11,400 | 2,600 |
| 1979 | 597,800 | 9,500 | 253,200 | 21,800 | 41,300 | 56,900 | 66,400 | 66,600 | 210,100 | 80,600 | 31,300 | 10,600 | 2,500 |
| 1978 | 543,900 | 9,400 | 239,700 | 21,400 | 40,200 | 54,900 | 62,200 | 61,000 | 186,500 | 70,000 | 26,500 | 9,400 | 2,300 |
| 1977 | 515,700 | 10,100 | 239,700 | 23,000 | 42,400 | 55,500 | 60,800 | 57,900 | 168,600 | 62,400 | 23,700 | 8,800 | 2,300 |
| 1976 | 468,100 | 10,300 | 225,000 | 22,900 | 41,700 | 51,900 | 55,900 | 52,600 | 145,400 | 55,400 | 21,000 | 8,600 | 2,300 |
| 1975 | 447,900 | 11,000 | 222,500 | 23,800 | 41,400 | 51,600 | 55,600 | 50,200 | 134,000 | 50,200 | 19,800 | 8,100 | 2,300 |
| 1974 | 418,100 | 10,600 | 210,800 | 23,100 | 40,100 | 49,800 | 51,500 | 46,200 | 122,700 | 44,900 | 18,600 | 8,200 | 2,300 |
| 1973 | 407,300 | 10,900 | 204,900 | 23,000 | 39,600 | 48,700 | 49,100 | 44,400 | 119,100 | 43,100 | 18,500 | 8,200 | 2,600 |
| 1972 | 403,200 | 9,900 | 202,300 | 22,500 | 38,400 | 47,600 | 49,200 | 44,500 | 119,600 | 41,200 | 19,000 | 8,600 | 2,700 |
| 1971 | 401,400 | 9,500 | 194,100 | 20,400 | 35,500 | 44,900 | 47,800 | 45,400 | 125,200 | 40,900 | 19,300 | 9,400 | 3,000 |
| 1970 | 398,700 | 9,500 | 190,400 | 19,300 | 34,000 | 42,800 | 47,500 | 46,800 | 126,700 | 40,600 | 19,100 | 9,400 | 3,000 |
| 1969 | 360,800 | 8,300 | 168,200 | 16,700 | 29,100 | 37,500 | 42,400 | 42,500 | 116,900 | 37,600 | 17,700 | 9,200 | 3,100 |
| 1968 | 339,200 | 7,700 | 158,000 | 15,400 | 27,000 | 35,500 | 39,500 | 40,700 | 107,900 | 35,200 | 17,200 | 9,700 | 3,300 |
| 1967 | 318,100 | 6,900 | 144,400 | 13,600 | 24,900 | 32,400 | 36,100 | 37,400 | 101,600 | 34,500 | 17,300 | 10,100 | 3,300 |
| 1966 | 302,400 | 6,200 | 135,800 | 12,900 | 23,000 | 30,000 | 34,000 | 35,800 | 92,500 | 35,500 | 18,400 | 10,500 | 3,400 |
| 1965 | 291,200 | 6,100 | 123,200 | 12,200 | 21,200 | 28,400 | 32,700 | 28,700 | 90,700 | 36,800 | 19,600 | 11,400 | 3,700 |
| 1964 | 275,700 | 5,800 | 111,400 | 11,300 | 20,200 | 27,200 | 25,800 | 26,900 | 87,900 | 36,400 | 19,500 | 11,100 | 3,600 |
| 1963 | 259,400 | 5,400 | 101,800 | 10,700 | 18,600 | 21,700 | 24,900 | 25,800 | 82,600 | 35,400 | 19,800 | 10,900 | 3,500 |
| 1962 | 245,100 | 5,100 | 94,400 | 10,100 | 15,500 | 20,600 | 23,600 | 24,700 | 77,400 | 34,000 | 19,800 | 11,100 | 3,300 |
| 1961 | 240,200 | 5,200 | 93,200 | 9,000 | 15,500 | 20,500 | 24,600 | 23,500 | 74,000 | 33,700 | 19,800 | 11,100 | 3,200 |
| 1960 | 224,300 | 4,600 | 87,100 | 8,700 | 15,100 | 19,900 | 21,800 | 21,600 | 68,000 | 32,100 | 18,900 | 10,600 | 3,000 |
| 1959 | 220,600 | 4,600 | 84,500 | 8,800 | 15,200 | 19,100 | 20,900 | 20,600 | 67,300 | 32,000 | 19,000 | 10,500 | 2,800 |
| 1958 | 208,700 | 4,400 | 79,400 | 8,400 | 13,900 | 17,800 | 19,700 | 19,600 | 62,800 | 30,800 | 18,700 | 9,900 | 2,700 |
| 1957 | 201,700 | 4,600 | 76,400 | 8,200 | 13,900 | 17,300 | 19,000 | 18,100 | 60,500 | 29,800 | 18,200 | 9,400 | 2,800 |
| 1956 | 193,500 | 4,200 | 72,800 | 7,500 | 13,200 | 16,200 | 18,400 | 17,500 | 58,800 | 29,400 | 17,000 | 8,800 | 2,500 |
| 1955 | 183,300 | 3,900 | 68,900 | 7,200 | 11,900 | 15,700 | 17,200 | 17,100 | 55,700 | 28,000 | 16,100 | 8,300 | 2,400 |

**Table I-1. Number of births to unmarried women by age of mother and race: United States, 1940 and 1950-93, cont.**

| *Year and race* | *All ages* | *Under 15 years* | *15-19 years* Total | *15 years* | *16 years* | *17 years* | *18 years* | *19 years* | *20-24 years* | *25-29 years* | *30-34 years* | *35-39 years* | *40 years and over* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL RACES...cont. | | | | | 15-17 years | | 18-19 years | | | | | | |
| 1954 | 176,600 | 3,900 | 67,200 | | 33,600 | | 33,500 | | 53,300 | 26,600 | 15,500 | 7,900 | 2,200 |
| 1953 | 160,800 | 3,400 | 61,500 | | 30,900 | | 30,600 | | 48,800 | 24,500 | 13,400 | 7,000 | 2,100 |
| 1952 | 150,300 | 3,200 | 58,700 | | 30,700 | | 28,000 | | 45,500 | 22,400 | 12,400 | 6,500 | 1,600 |
| 1951 | 146,500 | 3,200 | 57,400 | | 29,200 | | 28,300 | | 43,900 | 22,000 | 11,900 | 6,200 | 1,900 |
| 1950 | 141,600 | 3,200 | 56,000 | | 28,700 | | 27,400 | | 43,100 | 20,900 | 10,800 | 6,000 | 1,700 |
| 1940 | 89,500 | 2,100 | 40,500 | --- | --- | --- | --- | --- | 27,200 | 10,500 | 5,200 | 3,000 | 1,000 |
| WHITE | | | | | | | | | | | | | |
| Race of mother | | | | | | | | | | | | | |
| Reported/Inferred: | | | | | | | | | | | | | |
| 1993 | 742,129 | 4,868 | 213,080 | 13,280 | 28,656 | 45,096 | 59,890 | 66,158 | 263,538 | 139,905 | 79,136 | 34,283 | 7,319 |
| 1992 | 721,986 | 4,553 | 206,830 | 12,664 | 27,323 | 43,861 | 57,[illegible]96 | 65,416 | 258,268 | 137,639 | 75,696 | 32,218 | 6,782 |
| 1991 | 707,502 | 4,346 | 207,035 | 12,615 | 27,150 | 43,058 | 58,132 | 66,080 | 251,228 | 136,727 | 72,484 | 29,607 | 6,075 |
| 1990 | 669,698 | 4,157 | 199,896 | 11,625 | 25,063 | 41,398 | 56,195 | 65,615 | 232,529 | 131,967 | 68,400 | 27,050 | 5,699 |
| 1989 | 613,543 | 3,920 | 188,253 | 10,904 | 24,094 | 40,110 | 54,599 | 58,546 | 211,815 | 120,640 | 60,344 | 23,730 | 4,841 |
| 1988 | 557,394 | 3,595 | 173,981 | 10,369 | 23,183 | 39,087 | 49,166 | 52,176 | 192,584 | 108,787 | 53,498 | 20,812 | 4,137 |
| 1987 | 513,984 | 3,466 | 162,039 | 10,238 | 23,672 | 36,208 | 44,907 | 47,014 | 180,698 | 98,554 | 47,424 | 18,195 | 3,608 |
| 1986 | 480,533 | 3,420 | 153,605 | [illegible],414 | 21,729 | 33,510 | 42,393 | 45,559 | 172,014 | 90,379 | 41,848 | 16,323 | 2,944 |
| 1985 | 445,595 | 3,430 | 145,457 | 9,758 | 20,798 | 32,119 | 39,933 | 42,851 | 161,046 | 81,628 | 37,235 | 14,242 | 2,557 |
| 1984 | 403,022 | 3,258 | 136,065 | 9,188 | 19,640 | 30,294 | 37,158 | 39,785 | 145,873 | 71,057 | 32,102 | 12,329 | 2,338 |
| 1983 | 381,276 | 3,269 | 134,966 | 9,247 | 19,710 | 30,126 | 37,292 | 38,591 | 136,349 | 64,850 | 28,968 | 10,700 | 2,174 |
| 1982 | 365,647 | 3,270 | 133,457 | 9,010 | 19,805 | 30,108 | 36,749 | 37,785 | 130,731 | 60,411 | 26,191 | 9,508 | 2,079 |
| 1981 | 346,541 | 3,090 | 131,452 | 9,135 | 19,792 | 29,907 | 35,847 | 36,771 | 123,602 | 54,650 | 23,909 | 8,112 | 1,726 |
| 1980 | 328,984 | 3,166 | 130,417 | 9,356 | 19,916 | 29,433 | 35,088 | 36,624 | 116,445 | 48,722 | 21,325 | 7,298 | 1,611 |
| Race of child | | | | | | | | | | | | | |
| Estimated: | | | | | | | | | | | | | |
| 1980 | 294,200 | 3,200 | 125,500 | 9,300 | 19,600 | 28,600 | 33,500 | 34,500 | 103,600 | 39,200 | 15,900 | 5,500 | 1,200 |
| 1979 | 263,000 | 3,300 | 116,400 | 9,000 | 18,600 | 26,700 | 31,300 | 30,800 | 90,200 | 33,200 | 13,700 | 4,900 | 1,200 |
| 1978 | 233,600 | 3,300 | 108,500 | 8,900 | 18,200 | 25,400 | 28,300 | 27,600 | 77,000 | 28,300 | 11,400 | 4,200 | 1,100 |
| 1977 | 220,100 | 3,400 | 107,100 | 9,500 | 18,900 | 25,400 | 27,500 | 25,700 | 69,300 | 25,200 | 10,200 | 3,800 | 1,100 |
| 1976 | 197,100 | 3,500 | 97,600 | 9,200 | 17,900 | 22,900 | 24,600 | 23,000 | 58,900 | 22,800 | 9,400 | 3,900 | 1,000 |
| 1975 | 186,400 | 3,600 | 93,900 | 9,500 | 17,400 | 22,000 | 23,600 | 21,400 | 54,500 | 21,200 | 8,600 | 3,600 | 1,000 |
| 1974 | 168,500 | 3,300 | 85,000 | 8,600 | 16,100 | 20,100 | 21,000 | 19,200 | 49,600 | 18,600 | 7,600 | 3,400 | 1,000 |
| 1973 | 163,000 | 3,200 | 81,100 | 8,100 | 15,200 | 19,100 | 20,300 | 18,400 | 48,300 | 18,300 | 7,600 | 3,400 | 1,100 |
| 1972 | 160,500 | 2,700 | 78,600 | 7,500 | 13,800 | 18,600 | 19,600 | 19,100 | 49,500 | 17,300 | 7,700 | 3,500 | 1,100 |
| 1971 | 163,800 | 2,500 | 76,000 | 6,500 | 12,400 | 17,300 | 20,000 | 19,900 | 55,300 | 17,200 | 7,800 | 3,800 | 1,300 |
| 1970 | 175,100 | 2,500 | 79,300 | 6,100 | 12,600 | 17,500 | 21,100 | 22,100 | 62,100 | 18,000 | 7,700 | 4,000 | 1,400 |
| 1969 | 163,700 | 2,100 | 70,400 | 5,000 | 10,700 | 15,100 | 18,500 | 21,000 | 60,700 | 17,500 | 7,700 | 4,000 | 1,400 |
| 1968 | 155,200 | 1,900 | 67,400 | 4,500 | 9,700 | 14,200 | 17,800 | 21,100 | 56,800 | 16,100 | 7,300 | 4,200 | 1,500 |
| 1967 | 142,200 | 1,700 | 60,300 | 3,700 | 8,200 | 12,900 | 16,300 | 19,200 | 52,500 | 15,200 | 6,800 | 4,200 | 1,500 |
| 1966 | 132,900 | 1,400 | 57,500 | 3,600 | 7,800 | 12,000 | 15,200 | 18,900 | 45,800 | 14,900 | 7,300 | 4,500 | 1,500 |
| 1965 | 123,700 | 1,400 | 50,700 | 3,300 | 7,100 | 11,100 | 15,200 | 14,000 | 43,400 | 14,900 | 7,200 | 4,500 | 1,600 |
| 1964 | 114,300 | 1,400 | 45,200 | 3,200 | 6,900 | 11,500 | 11,000 | 12,600 | 40,600 | 14,300 | 6,800 | 4,400 | 1,600 |
| 1963 | 104,600 | 1,300 | 40,700 | 3,300 | 6,800 | 8,300 | 10,400 | 12,000 | 36,800 | 13,000 | 7,000 | 4,200 | 1,500 |

**Table I-1. Number of births to unmarried women by age of mother and race: United States, 1940 and 1950-93, cont.**

| Year and race | All ages | Age of mother | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Under 15 years | 15-19 years | | | | | | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
| | | | Total | 15 years | 16 years | 17 years | 18 years | 19 years | | | | | |
| WHITE...cont. | | | | | | | | | | | | | |
| Race of child | | | | | | | | | | | | | |
| Estimated2 | | | | | | | | | | | | | |
| 1962 | 94,700 | 1,300 | 36,700 | 3,000 | 5,100 | 7,700 | 9,800 | 11,100 | 32,300 | 11,900 | 7,000 | 4,100 | 1,400 |
| 1961 | 91,100 | 1,400 | 36,100 | 2,700 | 5,200 | 7,600 | 10,300 | 10,400 | 29,900 | 11,600 | 6,600 | 4,100 | 1,400 |
| 1960 | 82,500 | 1,200 | 32,800 | 2,600 | 5,100 | 7,400 | 8,800 | 9,000 | 26,700 | 10,700 | 6,000 | 3,900 | 1,300 |
| 1959 | 79,600 | 1,200 | 30,900 | 2,500 | 5,100 | 6,800 | 8,000 | 8,500 | 26,200 | 10,500 | 5,900 | 3,700 | 1,100 |
| 1958 | 74,600 | 1,200 | 28,500 | 2,400 | 4,400 | 6,300 | 7,300 | 8,000 | 24,100 | 10,000 | 6,100 | 3,500 | 1,100 |
| 1957 | 70,800 | 1,100 | 26,900 | 2,200 | 4,300 | 6,000 | 7,300 | 7,100 | 22,700 | 9,800 | 6,000 | 3,100 | 1,200 |
| 1956 | 67,500 | 1,000 | 25,200 | 1,900 | 3,900 | 5,600 | 6,900 | 7,000 | 22,200 | 9,500 | 5,400 | 3,200 | 1,100 |
| 1955 | 64,200 | 900 | 23,700 | 1,800 | 3,600 | 5,200 | 6,300 | 6,800 | 21,000 | 9,100 | 5,400 | 3,000 | 1,000 |
| | | | | | --------15-17 years-------- | | ------18-19 years------ | | | | | | |
| 1954 | 62,700 | 800 | 23,200 | | 10,200 | | 13,000 | | 20,600 | 8,900 | 5,200 | 3,000 | 1,000 |
| 1953 | 56,600 | 800 | 20,700 | | 9,100 | | 11,600 | | 19,000 | 8,200 | 4,700 | 2,600 | 800 |
| 1952 | 54,100 | 700 | 19,600 | | 8,800 | | 10,800 | | 18,500 | 7,700 | 4,300 | 2,600 | 700 |
| 1951 | 52,600 | 600 | 19,700 | | 8,900 | | 10,900 | | 17,300 | 7,800 | 4,200 | 2,300 | 800 |
| 1950 | 53,500 | 700 | 19,900 | | 8,700 | | 11,100 | | 17,800 | 7,900 | 4,200 | 2,300 | 700 |
| 1940 | 40,300 | 500 | 16,000 | --- | --- | --- | --- | --- | 14,700 | 5,200 | 2,200 | 1,300 | 500 |
| ALL OTHER | | | | | | | | | | | | | |
| Race of mother | | | | | | | | | | | | | |
| Reported/inferred1 | | | | | | | | | | | | | |
| 1993 | 498,043 | 6,599 | 144,352 | 12,873 | 22,033 | 30,274 | 37,560 | 41,612 | 175,000 | 93,871 | 53,127 | 21,287 | 3,807 |
| 1992 | 502,890 | 6,608 | 147,048 | 12,795 | 21,698 | 30,242 | 38,443 | 43,870 | 177,459 | 95,828 | 52,286 | 20,229 | 3,432 |
| 1991 | 506,267 | 6,622 | 150,448 | 12,468 | 21,899 | 30,981 | 39,986 | 45,114 | 177,866 | 97,866 | 51,417 | 18,746 | 3,302 |
| 1990 | 495,686 | 6,518 | 150,074 | 12,443 | 21,246 | 30,623 | 39,766 | 45,996 | 171,344 | 98,024 | 49,800 | 17,099 | 2,827 |
| 1989 | 480,626 | 6,692 | 149,015 | 12,454 | 22,100 | 31,024 | 40,216 | 43,221 | 166,307 | 94,837 | 46,000 | 15,300 | 2,475 |
| 1988 | 447,905 | 6,312 | 138,518 | 12,087 | 20,918 | 30,493 | 36,493 | 38,527 | 158,321 | 87,578 | 41,376 | 13,596 | 2,204 |
| 1987 | 419,029 | 6,117 | 130,919 | 11,767 | 20,843 | 28,012 | 33,431 | 36,866 | 150,559 | 80,703 | 36,762 | 12,076 | 1,893 |
| 1986 | 397,944 | 5,995 | 127,115 | 11,834 | 19,896 | 26,108 | 33,100 | 36,177 | 144,174 | 75,283 | 33,080 | 10,644 | 1,653 |
| 1985 | 382,579 | 5,956 | 125,465 | 11,172 | 18,834 | 26,252 | 33,001 | 36,206 | 139,319 | 70,396 | 30,080 | 9,796 | 1,567 |
| 1984 | 367,333 | 5,817 | 125,039 | 10,757 | 19,123 | 26,353 | 33,017 | 35,789 | 133,319 | 65,899 | 27,159 | 8,587 | 1,513 |
| 1983 | 356,617 | 5,547 | 126,294 | 10,831 | 19,646 | 27,065 | 33,424 | 35,328 | 129,230 | 61,669 | 24,916 | 7,506 | 1,455 |
| 1982 | 349,580 | 5,450 | 127,169 | 11,132 | 19,945 | 27,696 | 33,747 | 34,649 | 126,742 | 58,543 | 23,368 | 6,912 | 1,396 |
| 1981 | 340,064 | 5,499 | 127,787 | 11,419 | 20,381 | 27,974 | 33,209 | 34,804 | 123,317 | 54,524 | 21,391 | 6,169 | 1,377 |
| 1980 | 336,763 | 5,858 | 132,360 | 12,552 | 21,470 | 29,173 | 34,085 | 35,080 | 120,820 | 50,861 | 19,659 | 5,889 | 1,316 |
| Race of child | | | | | | | | | | | | | |
| Estimated2 | | | | | | | | | | | | | |
| 1980 | 349,300 | 6,000 | 136,900 | 12,800 | 22,100 | 30,200 | 35,300 | 36,400 | 126,300 | 52,700 | 20,100 | 5,900 | 1,300 |
| 1979 | 334,800 | 6,200 | 136,700 | 12,800 | 22,800 | 30,300 | 35,100 | 35,800 | 119,900 | 47,400 | 17,600 | 5,700 | 1,300 |
| 1978 | 310,200 | 6,100 | 131,200 | 12,500 | 22,100 | 29,400 | 33,900 | 33,400 | 109,500 | 41,800 | 15,200 | 5,200 | 1,200 |
| 1977 | 295,500 | 6,700 | 132,600 | 13,400 | 23,500 | 30,200 | 33,300 | 32,200 | 99,200 | 37,200 | 13,500 | 5,000 | 1,300 |
| 1976 | 271,000 | 6,800 | 127,400 | 13,700 | 23,800 | 29,000 | 31,300 | 29,600 | 86,500 | 32,700 | 11,600 | 4,700 | 1,300 |
| 1975 | 261,600 | 7,500 | 128,600 | 14,300 | 24,000 | 29,600 | 31,900 | 28,800 | 79,500 | 29,000 | 11,200 | 4,500 | 1,300 |
| 1974 | 249,600 | 7,300 | 125,700 | 14,600 | 24,000 | 29,700 | 30,500 | 27,000 | 73,200 | 26,400 | 11,000 | 4,700 | 1,300 |
| 1973 | 244,300 | 7,700 | 123,800 | 15,000 | 24,400 | 29,600 | 28,800 | 26,000 | 70,800 | 24,800 | 11,000 | 4,800 | 1,400 |

## Table I-1. Number of births to unmarried women by age of mother and race: United States, 1940 and 1950-93, cont.

| *Year and race* | *All ages* | *Age of mother* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Under 15 years* | *15-19 years* | | | | | | *20-24 years* | *25-29 years* | *30-34 years* | *35-39 years* | *40 years and over* |
| | | | *Total* | *15 years* | *16 years* | *17 years* | *18 years* | *19 years* | | | | | |
| ALL OTHER...cont. | | | | | | | | | | | | | |
| 1972 | 242,700 | 7,200 | 123,600 | 14,900 | 24,600 | 29,000 | 29,600 | 25,500 | 70,000 | 23,900 | 11,200 | 5,100 | 1,500 |
| 1971 | 237,500 | 7,100 | 118,100 | 13,900 | 23,200 | 27,600 | 27,900 | 25,600 | 69,800 | 23,700 | 11,500 | 5,600 | 1,700 |
| 1970 | 223,600 | 7,000 | 111,100 | 13,200 | 21,500 | 25,300 | 26,400 | 24,700 | 64,600 | 22,600 | 11,300 | 5,400 | 1,700 |
| 1969 | 197,200 | 6,200 | 97,800 | 11,700 | 18,400 | 22,400 | 23,900 | 21,500 | 56,200 | 20,100 | 10,000 | 5,200 | 1,700 |
| 1968 | 183,900 | 5,800 | 90,600 | 10,900 | 17,300 | 21,300 | 21,700 | 19,500 | 51,100 | 19,100 | 10,000 | 5,500 | 1,800 |
| 1967 | 175,800 | 5,200 | 84,000 | 9,900 | 16,700 | 19,500 | 19,800 | 18,200 | 49,100 | 19,300 | 10,500 | 5,900 | 1,700 |
| 1966 | 169,500 | 4,800 | 78,300 | 9,300 | 15,200 | 18,000 | 18,800 | 17,000 | 46,700 | 20,700 | 11,100 | 6,100 | 1,900 |
| 1965 | 167,500 | 4,600 | 72,400 | 8,900 | 14,100 | 17,200 | 17,500 | 14,700 | 47,300 | 21,900 | 12,400 | 6,900 | 2,000 |
| 1964 | 161,300 | 4,400 | 66,200 | 8,100 | 13,300 | 15,800 | 14,800 | 14,300 | 47,300 | 22,100 | 12,700 | 6,700 | 1,900 |
| 1963 | 154,900 | 4,200 | 61,000 | 7,500 | 11,800 | 13,400 | 14,500 | 13,800 | 45,800 | 22,300 | 12,800 | 6,700 | 2,000 |
| 1962 | 150,400 | 3,900 | 57,600 | 7,100 | 10,400 | 12,900 | 13,800 | 13,500 | 45,000 | 22,100 | 12,900 | 7,100 | 1,800 |
| 1961 | 149,100 | 3,800 | 57,100 | 6,400 | 10,300 | 12,900 | 14,400 | 13,100 | 44,100 | 22,100 | 13,100 | 7,000 | 1,900 |
| 1960 | 141,800 | 3,500 | 54,300 | 6,100 | 10,000 | 12,600 | 13,100 | 12,600 | 41,300 | 21,300 | 12,900 | 6,700 | 1,700 |
| 1959 | 141,100 | 3,400 | 53,600 | 6,300 | 10,100 | 12,300 | 12,900 | 12,100 | 41,100 | 21,500 | 13,100 | 6,700 | 1,700 |
| 1958 | 134,100 | 3,300 | 50,900 | 6,000 | 9,400 | 11,500 | 12,400 | 11,600 | 38,600 | 20,800 | 12,600 | 6,300 | 1,600 |
| 1957 | 130,900 | 3,500 | 49,600 | 6,000 | 9,600 | 11,200 | 11,700 | 11,000 | 37,800 | 20,100 | 12,200 | 6,300 | 1,600 |
| 1956 | 126,000 | 3,200 | 47,600 | 5,600 | 9,300 | 10,700 | 11,600 | 10,400 | 36,600 | 19,900 | 11,600 | 5,600 | 1,500 |
| 1955 | 119,200 | 3,000 | 45,300 | 5,400 | 8,300 | 10,500 | 10,900 | 10,300 | 34,700 | 18,900 | 10,700 | 5,300 | 1,400 |
| | | | | | 15-17 years | | 18-19 years | | | | | | |
| 1954 | 113,900 | 3,100 | 44,000 | | 23,400 | | 20,600 | | 32,700 | 17,700 | 10,300 | 4,900 | 1,200 |
| 1953 | 104,200 | 2,700 | 40,800 | | 21,800 | | 19,000 | | 29,900 | 16,300 | 8,700 | 4,400 | 1,300 |
| 1952 | 96,200 | 2,600 | 39,000 | | 21,800 | | 17,200 | | 27,000 | 14,700 | 8,000 | 3,900 | 900 |
| 1951 | 93,900 | 2,600 | 37,700 | | 20,300 | | 17,400 | | 26,600 | 14,200 | 7,700 | 4,000 | 1,200 |
| 1950 | 88,100 | 2,500 | 36,100 | | 19,900 | | 16,200 | | 25,300 | 13,000 | 6,600 | 3,600 | 1,000 |
| 1940 | 49,200 | 1,600 | 24,500 | --- | --- | --- | --- | --- | 12,500 | 5,300 | 2,900 | 1,700 | 600 |
| BLACK | | | | | | | | | | | | | |
| Race of mother | | | | | | | | | | | | | |
| Reported/Inferredı | | | | | | | | | | | | | |
| 1993 | 452,476 | 6,293 | 133,031 | 12,018 | 20,489 | 27,905 | 34,509 | 38,110 | 159,598 | 84,604 | 47,330 | 18,526 | 3,094 |
| 1992 | 458,969 | 6,296 | 135,994 | 12,059 | 20,158 | 27,985 | 35,422 | 40,370 | 162,561 | 86,853 | 46,860 | 17,608 | 2,797 |
| 1991 | 463,750 | 6,298 | 139,325 | 11,701 | 20,402 | 28,714 | 36,902 | 41,606 | 163,532 | 89,198 | 46,370 | 16,357 | 2,670 |
| 1990 | 455,304 | 6,240 | 139,442 | 11,732 | 19,894 | 28,476 | 36,875 | 42,465 | 157,819 | 89,614 | 44,930 | 14,946 | 2,313 |
| 1989 | 442,395 | 6,458 | 138,718 | 11,797 | 20,735 | 28,840 | 37,398 | 39,948 | 153,551 | 86,846 | 41,468 | 13,333 | 2,021 |
| 1988 | 413,157 | 6,057 | 129,333 | 11,498 | 19,680 | 28,470 | 33,914 | 35,771 | 146,697 | 80,125 | 37,290 | 11,833 | 1,822 |
| 1987 | 387,468 | 5,861 | 122,502 | 11,188 | 19,722 | 26,134 | 31,207 | 34,251 | 139,771 | 74,133 | 33,112 | 10,511 | 1,578 |
| 1986 | 369,786 | 5,762 | 119,357 | 11,310 | 18,749 | 24,499 | 31,022 | 33,777 | 134,380 | 69,623 | 29,892 | 9,387 | 1,385 |
| 1985 | 356,205 | 5,753 | 118,058 | 10,653 | 17,881 | 24,695 | 30,867 | 33,962 | 130,032 | 65,126 | 27,262 | 8,650 | 1,324 |
| 1984 | 342,524 | 5,599 | 117,844 | 10,285 | 18,179 | 24,842 | 31,026 | 33,512 | 124,541 | 61,091 | 24,580 | 7,579 | 1,290 |
| 1983 | 333,183 | 5,324 | 119,216 | 10,383 | 18,636 | 25,527 | 31,542 | 33,128 | 120,905 | 57,122 | 22,586 | 6,735 | 1,295 |
| 1982 | 327,998 | 5,272 | 120,243 | 10,685 | 19,015 | 26,218 | 31,796 | 32,529 | 119,133 | 54,500 | 21,366 | 6,229 | 1,255 |
| 1981 | 321,383 | 5,323 | 121,738 | 11,016 | 19,543 | 26,662 | 31,553 | 32,964 | 116,568 | 51,170 | 19,712 | 5,633 | 1,239 |
| 1980 | 318,799 | 5,691 | 126,276 | 12,137 | 20,602 | 27,809 | 32,457 | 33,271 | 114,538 | 47,594 | 18,160 | 5,338 | 1,202 |

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## Table I-1. Number of births to unmarried women by age of mother and race: United States, 1940 and 1950-93, cont.

| *Year and race* | *All ages* | *Under 15 years* | *Age of mother* | | | | | | *20-24 years* | *25-29 years* | *30-34 years* | *35-39 years* | *40 years and over* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *15-19 years* | | | | | | | | | | |
| | | | *Total* | *15 years* | *16 years* | *17 years* | *18 years* | *19 years* | | | | | |
| BLACK...cont. | | | | | | | | | | | | | |
| Race of child | | | | | | | | | | | | | |
| Estimated[2] | | | | | | | | | | | | | |
| 1980 | 327,000 | 5,800 | 129,700 | 12,400 | 21,100 | 28,600 | 33,400 | 34,200 | 118,300 | 48,500 | 18,300 | 5,200 | 1,200 |
| 1979 | 315,800 | 6,100 | 130,100 | 12,300 | 21,800 | 28,800 | 33,200 | 33,900 | 113,100 | 44,000 | 16,100 | 5,200 | 1,200 |
| 1978 | 293,400 | 5,900 | 125,200 | 12,000 | 21,100 | 28,100 | 32,300 | 31,700 | 103,500 | 38,900 | 14,000 | 4,800 | 1,200 |
| 1977 | 281,600 | 6,500 | 127,200 | 12,900 | 22,600 | 28,900 | 31,900 | 30,800 | 94,600 | 35,000 | 12,600 | 4,700 | 1,200 |
| 1976 | 258,800 | 6,600 | 122,700 | 13,200 | 22,900 | 28,000 | 30,200 | 28,400 | 82,400 | 30,800 | 10,700 | 4,400 | 1,200 |
| 1975 | 249,600 | 7,200 | 123,800 | 13,800 | 23,200 | 28,500 | 30,600 | 27,600 | 75,600 | 27,100 | 10,500 | 4,200 | [illegible] |
| 1974 | 238,800 | 7,100 | 121,200 | 14,200 | 23,300 | 28,600 | 29,300 | 25,900 | 69,700 | 24,900 | 10,200 | 4,400 | 1,200 |
| 1973 | 234,500 | 7,500 | 119,800 | 14,600 | 23,700 | 28,700 | 27,900 | 25,000 | 67,500 | 23,400 | 10,400 | 4,500 | 1,400 |
| 1972 | 233,300 | 7,100 | 119,900 | 14,600 | 23,900 | 28,100 | 28,700 | 24,500 | 67,000 | 22,600 | 10,500 | 4,800 | 1,500 |
| 1971 | 229,000 | 6,900 | 114,900 | 13,600 | 22,600 | 26,900 | 27,000 | 24,800 | 67,000 | 22,400 | 10,900 | 5,300 | 1,500 |
| 1970 | 215,100 | 6,800 | 107,800 | 13,000 | 20,900 | 24,500 | 25,600 | 23,900 | 61,800 | 21,300 | 10,700 | 5,100 | 1,600 |
| 1969 | 189,400 | 6,100 | 95,000 | 11,500 | 17,900 | 21,800 | 23,200 | 20,700 | 53,500 | 18,900 | 9,400 | 4,900 | 1,600 |

[1] Data for States in which marital status was not reported have been inferred from other items on the birth certificate and included with data from the reporting States.

[2] Births to unmarried women are estimated for the United States from data for registration areas in which marital status of mother was reported.

Note: Figures by age may not add to estimated totals for years prior to 1980 because of rounding.

Sources: Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. Monthly Vital Statistics Report, Vol. 44, No. 3 (Suppl.). 1995.
Ventura SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995.

### Table I-2. Birth rates for unmarried women by age of mother: United States, 1940-93, and by age of mother and race, 1940, 1950, and 1955-93

[Rates are live births per 1,000 unmarried women in specified group.]

| Year and race | Age of mother | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 15-44 years[1] | 15-19 years Total | 15-19 years 15-17 years | 15-19 years 18-19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years[2] |
| **ALL RACES** | | | | | | | | | |
| Reported/Inferred[3] | | | | | | | | | |
| 1993 | 45.3 | 44.5 | 30.6 | 66.9 | 69.2 | 57.1 | 38.5 | 19.0 | 4.4 |
| 1992 | 45.2 | 44.6 | 30.4 | 67.3 | 68.5 | 56.5 | 37.9 | 18.8 | 4.1 |
| 1991 | 45.2 | 44.8 | 30.9 | 65.7 | 68.0 | 56.5 | 38.1 | 18.0 | 3.8 |
| 1990 | 43.8 | 42.5 | 29.6 | 60.7 | 65.1 | 56.0 | 37.6 | 17.3 | 3.6 |
| 1989 | 41.6 | 40.1 | 28.7 | 56.0 | 61.2 | 52.8 | 34.9 | 16.0 | 3.4 |
| 1988 | 38.5 | 36.4 | 26.4 | 51.5 | 56.0 | 48.5 | 32.0 | 15.0 | 3.2 |
| 1987 | 36.0 | 33.8 | 24.5 | 48.9 | 52.6 | 44.5 | 29.6 | 13.5 | 2.9 |
| 1986 | 34.2 | 32.3 | 22.8 | 48.0 | 49.3 | 42.2 | 27.2 | 12.2 | 2.7 |
| 1985 | 32.8 | 31.4 | 22.4 | 45.9 | 46.5 | 39.9 | 25.2 | 11.6 | 2.5 |
| 1984 | 31.0 | 30.0 | 21.9 | 42.5 | 43.0 | 37.1 | 23.3 | 10.9 | 2.5 |
| 1983 | 30.3 | 29.5 | 22.0 | 40.7 | 41.8 | 35.5 | 22.4 | 10.2 | 2.6 |
| 1982 | 30.0 | 28.7 | 21.5 | 39.6 | 41.5 | 35.1 | 21.9 | 10.0 | 2.7 |
| 1981 | 29.5 | 27.9 | 20.9 | 39.0 | 41.1 | 34.5 | 20.8 | 9.8 | 2.6 |
| 1980 | 29.4 | 27.6 | 20.6 | 39.0 | 40.9 | 34.0 | 21.1 | 9.7 | 2.6 |
| Estimated[4] | | | | | | | | | |
| 1980 | 28.4 | 27.5 | 20.7 | 38.7 | 39.7 | 31.4 | 18.5 | 8.4 | 2.3 |
| 1979 | 27.2 | 26.4 | 19.9 | 37.2 | 37.7 | 29.9 | 17.7 | 8.4 | 2.3 |
| 1978 | 25.7 | 24.9 | 19.1 | 35.1 | 35.3 | 28.5 | 16.9 | 8.2 | 2.2 |
| 1977 | 25.6 | 25.1 | 19.8 | 34.6 | 34.0 | 27.7 | 16.9 | 8.4 | 2.4 |
| 1976 | 24.3 | 23.7 | 19.0 | 32.1 | 31.7 | 26.8 | 17.5 | 9.0 | 2.5 |
| 1975 | 24.5 | 23.9 | 19.3 | 32.5 | 31.2 | 27.5 | 17.9 | 9.1 | 2.6 |
| 1974 | 23.9 | 23.0 | 18.8 | 31.2 | 30.5 | 27.9 | 18.4 | 10.0 | 2.6 |
| 1973 | 24.3 | 22.7 | 18.7 | 30.4 | 31.5 | 29.6 | 20.3 | 10.8 | 3.0 |
| 1972 | 24.8 | 22.8 | 18.5 | 30.9 | 33.2 | 30.8 | 22.6 | 12.0 | 3.1 |
| 1971 | 25.5 | 22.3 | 17.5 | 31.7 | 35.5 | 34.5 | 25.2 | 13.3 | 3.5 |
| 1970 | 26.4 | 22.4 | 17.1 | 32.9 | 38.4 | 37.0 | 27.1 | 13.6 | 3.5 |
| 1969 | 24.8 | 20.4 | 15.2 | 30.8 | 37.3 | 37.9 | 27.0 | 13.5 | 3.6 |
| 1968 | 24.3 | 19.7 | 14.7 | 29.6 | 37.2 | 38.3 | 27.8 | 14.8 | 3.8 |
| 1967 | 23.7 | 18.5 | 13.8 | 27.6 | 38.1 | 41.1 | 28.9 | 15.3 | 4.0 |
| 1966 | 23.3 | 17.5 | 13.1 | 25.6 | 39.0 | 45.1 | 32.7 | 16.3 | 4.1 |
| 1965 | 23.4 | 16.7 | --- | --- | 39.6 | 49.1 | 37.2 | 17.4 | 4.5 |
| 1964 | 23.0 | 15.9 | --- | --- | 39.5 | 49.9 | 36.9 | 16.3 | 4.4 |
| 1963 | 22.5 | 15.3 | --- | --- | 39.9 | 48.8 | 33.1 | 16.1 | 4.3 |
| 1962 | 21.9 | 14.8 | --- | --- | 40.7 | 46.6 | 29.6 | 15.6 | 4.1 |
| 1961 | 22.7 | 16.0 | --- | --- | 41.4 | 46.4 | 28.2 | 15.4 | 3.9 |
| 1960 | 21.6 | 15.3 | --- | --- | 39.7 | 45.1 | 27.8 | 14.1 | 3.6 |
| 1959 | 21.9 | 15.5 | --- | --- | 40.2 | 44.1 | 28.1 | 14.1 | 3.3 |
| 1958 | 21.2 | 15.3 | --- | --- | 38.2 | 40.5 | 27.5 | 13.3 | 3.2 |
| 1957 | 21.0 | 15.8 | --- | --- | 37.3 | 36.8 | 26.8 | 12.1 | 3.1 |
| 1956 | 20.4 | 15.6 | --- | --- | 36.4 | 35.6 | 24.6 | 11.1 | 2.8 |
| 1955 | 19.3 | 15.1 | --- | --- | 33.5 | 33.5 | 22.0 | 10.5 | 2.7 |
| 1954 | 18.7 | 14.9 | --- | --- | 31.4 | 31.0 | 20.4 | 10.3 | 2.5 |
| 1953 | 16.9 | 13.9 | --- | --- | 28.0 | 27.6 | 17.3 | 9.0 | 2.4 |
| 1952 | 15.8 | 13.5 | --- | --- | 25.4 | 24.8 | 15.7 | 8.2 | 1.9 |
| 1951 | 15.1 | 13.2 | --- | --- | 23.2 | 22.8 | 14.6 | 7.6 | 2.2 |
| 1950 | 14.1 | 12.6 | --- | --- | 21.3 | 19.9 | 13.3 | 7.2 | 2.0 |
| 1949 | 13.3 | 12.0 | --- | --- | 21.0 | 18.0 | 11.4 | 6.8 | 1.9 |
| 1948 | 12.5 | 11.4 | --- | --- | 19.8 | 16.4 | 10.0 | 5.8 | 1.6 |
| 1947 | 12.1 | 11.0 | --- | --- | 18.9 | 15.7 | 9.2 | 5.6 | 1.8 |
| 1946 | 10.9 | 9.5 | --- | --- | 17.3 | 15.6 | 7.3 | 4.4 | 1.8 |
| 1945 | 10.1 | 9.5 | --- | --- | 15.3 | 12.1 | 7.1 | 4.1 | 1.6 |
| 1944 | 9.0 | 8.8 | --- | --- | 13.1 | 10.1 | 7.0 | 4.0 | 1.3 |
| 1943 | 8.3 | 8.4 | --- | --- | 11.4 | 8.8 | 6.7 | 3.8 | 1.3 |
| 1942 | 8.0 | 8.2 | --- | --- | 11.0 | 8.4 | 6.3 | 3.8 | 1.2 |
| 1941 | 7.8 | 8.0 | --- | --- | 10.5 | 7.8 | 6.0 | 3.7 | 1.4 |
| 1940 | 7.1 | 7.4 | --- | --- | 9.5 | 7.2 | 5.1 | 3.4 | 1.2 |

**Table I-2. Birth rates for unmarried women by age of mother: United States, 1940-93, and by age of mother and race, 1940, 1950, and 1955-93....continued.**

[Rates are live births per 1,000 unmarried women in specified group.]

| *Year and race* | *Age of mother* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | *15-19 years* | | | | | | | |
| | *15-44 years*[1] | *Total* | *15-17 years* | *18-19 years* | *20-24 years* | *25-29 years* | *30-34 years* | *35-39 years* | *40-44 years*[2] |
| WHITE | | | | | | | | | |
| Race of mother | | | | | | | | | |
| Reported/Inferred[3] | | | | | | | | | |
| 1993 | 35.9 | 33.6 | 22.1 | 52.4 | 54.2 | 46.7 | 32.2 | 16.4 | 3.9 |
| 1992 | 35.2 | 33.0 | 21.6 | 51.5 | 52.7 | 45.4 | 31.5 | 16.2 | 3.6 |
| 1991 | 34.6 | 32.8 | 21.8 | 49.6 | 51.5 | 44.6 | 31.1 | 15.2 | 3.2 |
| 1990 | 32.9 | 30.6 | 20.4 | 44.9 | 48.2 | 43.0 | 29.9 | 14.5 | 3.2 |
| 1989 | 30.2 | 28.0 | 19.3 | 40.2 | 43.8 | 39.1 | 26.8 | 13.1 | 2.9 |
| 1988 | 27.4 | 25.3 | 17.6 | 36.8 | 39.2 | 35.4 | 24.2 | 12.1 | 2.7 |
| 1987 | 25.3 | 23.2 | 16.2 | 34.5 | 36.6 | 32.0 | 22.3 | 10.7 | 2.4 |
| 1986 | 23.9 | 21.8 | 14.9 | 33.5 | 34.2 | 30.5 | 20.1 | 9.7 | 2.2 |
| 1985 | 22.5 | 20.8 | 14.5 | 31.2 | 31.7 | 28.5 | 18.4 | 9.0 | 2.0 |
| 1984 | 20.6 | 19.3 | 13.7 | 27.9 | 28.5 | 25.5 | 16.8 | 8.4 | 2.0 |
| 1983 | 19.8 | 18.7 | 13.6 | 26.4 | 27.1 | 23.8 | 15.9 | 7.8 | 2.0 |
| 1982 | 19.3 | 18.0 | 13.1 | 25.3 | 26.5 | 23.1 | 15.3 | 7.4 | 2.1 |
| 1981 | 18.6 | 17.2 | 12.6 | 24.6 | 25.8 | 22.3 | 14.2 | 7.2 | 1.9 |
| 1980 | 18.1 | 16.5 | 12.0 | 24.1 | 25.1 | 21.5 | 14.1 | 7.1 | 1.8 |
| Race of child | | | | | | | | | |
| Estimated[4] | | | | | | | | | |
| 1980 | 16.2 | 15.9 | 11.7 | 22.8 | 22.4 | 17.3 | 10.5 | 5.3 | 1.4 |
| 1979 | 14.9 | 14.6 | 10.8 | 21.0 | 20.3 | 15.9 | 10.0 | 5.1 | 1.4 |
| 1978 | 13.7 | 13.6 | 10.3 | 19.3 | 18.1 | 14.8 | 9.4 | 4.8 | 1.3 |
| 1977 | 13.5 | 13.4 | 10.5 | 18.7 | 17.4 | 14.4 | 9.3 | 4.9 | 1.4 |
| 1976 | 12.6 | 12.3 | 9.7 | 16.9 | 15.8 | 14.0 | 10.1 | 5.5 | 1.4 |
| 1975 | 12.4 | 12.0 | 9.6 | 16.5 | 15.5 | 14.8 | 9.8 | 5.4 | 1.5 |
| 1974 | 11.7 | 11.0 | 8.8 | 15.3 | 15.0 | 14.7 | 9.5 | 5.5 | 1.5 |
| 1973 | 11.8 | 10.6 | 8.4 | 14.9 | 15.5 | 15.9 | 10.6 | 5.9 | 1.7 |
| 1972 | 11.9 | 10.4 | 8.0 | 15.1 | 16.6 | 16.5 | 12.1 | 6.5 | 1.6 |
| 1971 | 12.5 | 10.3 | 7.4 | 15.8 | 18.7 | 18.5 | 13.2 | 7.2 | 1.9 |
| 1970 | 13.9 | 10.9 | 7.5 | 17.6 | 22.5 | 21.1 | 14.2 | 7.6 | 2.0 |
| 1969 | 13.4 | 9.9 | 6.6 | 16.6 | 23.0 | 22.5 | 15.1 | 7.6 | 2.0 |
| | | | | | | | | ------35-44 years------ | |
| 1968 | 13.1 | 9.7 | 6.2 | 16.6 | 23.0 | 22.1 | 15.0 | 4.7 | |
| 1967 | 12.5 | 8.9 | 5.6 | 15.3 | 23.0 | 22.7 | 14.0 | 4.7 | |
| 1966 | 11.9 | 8.5 | 5.4 | 14.1 | 22.6 | 23.4 | 15.7 | 4.9 | |
| 1965 | 11.6 | 7.9 | --- | --- | 22.0 | 24.3 | 16.6 | 4.9 | |
| 1964 | 11.0 | 7.4 | --- | --- | 21.1 | 24.0 | 15.9 | 4.8 | |
| 1963 | 10.5 | 7.0 | --- | --- | 20.7 | 21.9 | 14.2 | 4.6 | |
| 1962 | 9.8 | 6.5 | --- | --- | 19.9 | 19.8 | 12.6 | 4.3 | |
| 1961 | 10.0 | 7.1 | --- | --- | 19.7 | 19.4 | 11.3 | 4.2 | |
| 1960 | 9.2 | 6.6 | --- | --- | 18.2 | 18.2 | 10.8 | 3.9 | |
| 1959 | 9.2 | 6.5 | --- | --- | 18.3 | 17.6 | 10.7 | 3.6 | |
| 1958 | 8.8 | 6.3 | --- | --- | 17.3 | 15.8 | 10.8 | 3.4 | |
| 1957 | 8.6 | 6.4 | --- | --- | 16.6 | 14.6 | 10.5 | 3.0 | |
| 1956 | 8.3 | 6.2 | --- | --- | 16.3 | 14.0 | 9.2 | 3.0 | |
| 1955 | 7.9 | 6.0 | --- | --- | 15.0 | 13.3 | 8.6 | 2.8 | |
| 1950 | 6.1 | 5.1 | --- | --- | 10.0 | 8.7 | 5.9 | 2.0 | |
| 1940 | 3.6 | 3.3 | --- | --- | 5.7 | 4.0 | 2.5 | 1.2 | |

**Table I-2. Birth rates for unmarried women by age of mother: United States, 1940-93, and by age of mother and race, 1940, 1950, and 1955-93....continued.**

[Rates are live births per 1,000 unmarried women in specified group.]

| Year and race | Age of mother | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 15-44 years[1] | 15-19 years Total | 15-19 years 15-17 years | 15-19 years 18-19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years[2] |
| ALL OTHER | | | | | | | | | |
| Race of mother | | | | | | | | | |
| Reported/Inferred[3] | | | | | | | | | |
| 1993 | 74.3 | 85.4 | 63.4 | 119.5 | 118.8 | 85.3 | 54.2 | 25.7 | 6.1 |
| 1992 | 76.1 | 87.9 | 64.2 | 123.9 | 121.2 | 86.9 | 53.6 | 25.4 | 5.7 |
| 1991 | 78.8 | 90.3 | 66.3 | 125.0 | 124.4 | 90.1 | 55.8 | 25.1 | 5.7 |
| 1990 | 79.7 | 88.3 | 65.0 | 120.6 | 124.3 | 94.3 | 57.8 | 24.6 | 5.2 |
| 1989 | 80.7 | 87.8 | 65.6 | 119.5 | 123.5 | 94.7 | 57.9 | 24.3 | 5.1 |
| 1988 | 77.3 | 81.6 | 61.9 | 111.8 | 116.7 | 89.9 | 54.9 | 23.5 | 5.0 |
| 1987 | 74.3 | 78.0 | 59.4 | 107.0 | 110.1 | 85.0 | 51.6 | 22.2 | 4.9 |
| 1986 | 71.4 | 76.6 | 57.4 | 106.3 | 104.0 | 78.5 | 48.5 | 20.1 | 4.6 |
| 1985 | 70.1 | 76.6 | 57.6 | 104.7 | 101.0 | 74.4 | 46.4 | 20.0 | 4.4 |
| 1984 | 68.8 | 76.1 | 58.0 | 102.2 | 97.5 | 72.7 | 43.0 | 19.3 | 4.4 |
| 1983 | 69.9 | 76.4 | 59.1 | 101.3 | 97.8 | 73.8 | 42.5 | 18.9 | 4.7 |
| 1982 | 71.5 | 76.7 | 59.1 | 103.0 | 100.1 | 75.4 | 42.4 | 19.2 | 5.1 |
| 1981 | 72.8 | 76.7 | 58.9 | 104.3 | 101.6 | 75.9 | 43.5 | 18.7 | 5.5 |
| 1980 | 75.2 | 80.2 | 62.1 | 109.3 | 103.5 | 76.4 | 45.2 | 18.5 | 5.4 |
| Race of child | | | | | | | | | |
| Estimated[4] | | | | | | | | | |
| 1980 | 78.0 | 83.0 | 64.0 | 113.4 | 108.2 | 79.1 | 46.2 | 18.5 | 5.3 |
| 1979 | 78.2 | 83.9 | 64.8 | 115.3 | 107.1 | 77.7 | 44.8 | 19.1 | 5.7 |
| 1978 | 76.5 | 81.2 | 63.2 | 111.6 | 104.9 | 76.4 | 43.6 | 18.2 | 5.6 |
| 1977 | 77.4 | 84.0 | 67.2 | 112.7 | 103.1 | 74.4 | 43.7 | 18.5 | 6.6 |
| 1976 | 76.4 | 82.5 | 67.5 | 108.9 | 101.1 | 74.0 | 43.4 | 18.7 | 6.9 |
| 1975 | 79.0 | 86.3 | 70.7 | 114.3 | 102.1 | 73.2 | 47.9 | 20.0 | 6.9 |
| 1974 | 80.3 | 87.3 | 73.2 | 113.4 | 103.0 | 77.0 | 50.9 | 23.2 | 6.6 |
| 1973 | 83.2 | 88.5 | 75.6 | 112.8 | 107.8 | 81.0 | 55.8 | 26.2 | 7.2 |
| 1972 | 86.2 | 91.8 | 77.6 | 119.3 | 112.4 | 83.3 | 55.7 | 29.0 | 8.2 |
| 1971 | 90.2 | 92.0 | 75.4 | 125.4 | 120.6 | 92.6 | 65.3 | 32.2 | 10.4 |
| 1970 | 89.9 | 90.8 | 73.3 | 126.5 | 121.0 | 93.8 | 69.8 | 32.0 | 10.7 |
| 1969 | 84.8 | 84.2 | 67.3 | 118.9 | 115.4 | 93.9 | 69.0 | 33.3 | 10.4 |
| | | | | | | | | --------35-44--------- | |
| 1968 | 85.1 | 82.1 | 66.2 | 115.4 | 116.4 | 100.0 | 75.8 | 24.6 | |
| 1967 | 88.3 | 80.0 | 64.1 | 114.5 | 126.2 | 113.5 | 92.1 | 28.4 | |
| 1966 | 92.1 | 77.4 | 61.2 | 113.3 | 137.0 | 138.0 | 113.3 | 33.3 | |
| 1965 | 97.4 | 77.1 | --- | --- | 147.8 | 161.0 | 131.9 | 38.7 | |
| 1964 | 97.2 | 75.5 | --- | --- | 158.2 | 164.9 | 127.0 | 34.4 | |
| 1963 | 97.2 | 75.3 | --- | --- | 156.3 | 168.9 | 120.8 | 34.4 | |
| 1962 | 97.6 | 75.5 | --- | --- | 158.5 | 171.3 | 113.2 | 35.5 | |
| 1961 | 101.0 | 78.8 | --- | --- | 165.8 | 171.3 | 110.0 | 37.4 | |
| 1960 | 98.3 | 76.5 | --- | --- | 166.5 | 171.8 | 104.0 | 35.6 | |
| 1959 | 100.8 | 80.8 | --- | --- | 167.8 | 168.0 | 106.5 | 34.9 | |
| 1958 | 97.8 | 80.4 | --- | --- | 153.2 | 161.2 | 110.5 | 32.5 | |
| 1957 | 95.3 | 81.4 | --- | --- | 147.7 | 142.6 | 115.1 | 30.3 | |
| 1956 | 92.1 | 79.6 | --- | --- | 143.5 | 132.7 | 113.7 | 27.0 | |
| 1955 | 87.2 | 77.6 | --- | --- | 133.0 | 125.2 | 100.9 | 25.3 | |
| 1950 | 71.2 | 68.5 | --- | --- | 105.4 | 94.2 | 63.5 | 20.0 | |
| 1940 | 35.6 | 42.5 | --- | --- | 46.1 | 32.5 | 23.4 | 9.3 | |

## Table I-2. Birth rates for unmarried women by age of mother: United States, 1940-93, and by age of mother and race, 1940, 1950, and 1955-93....continued.

[Rates are live births per 1,000 unmarried women in specified group.]

| Year and race | Age of mother |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  |  | 15-19 years |  |  |  |  |  |  |  |
|  | 15-44 years1 | Total | 15-17 years | 18-19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years2 |
| **BLACK** |  |  |  |  |  |  |  |  |  |
| **Race of mother** |  |  |  |  |  |  |  |  |  |
| **Reported/Inferred3** |  |  |  |  |  |  |  |  |  |
| **1993** | 84.0 | 102.4 | 76.8 | 141.6 | 142.2 | 94.5 | 57.3 | 25.9 | 5.8 |
| **1992** | 86.5 | 105.9 | 78.0 | 147.8 | 144.3 | 98.2 | 57.7 | 25.8 | 5.4 |
| **1991** | 89.5 | 108.5 | 80.4 | 148.7 | 147.5 | 100.9 | 60.1 | 25.6 | 5.4 |
| **1990** | 90.5 | 106.0 | 78.8 | 143.7 | 144.8 | 105.3 | 61.5 | 25.5 | 5.1 |
| **1989** | 90.7 | 104.5 | 78.9 | 140.9 | 142.4 | 102.9 | 60.5 | 24.9 | 5.0 |
| **1988** | 86.5 | 96.1 | 73.5 | 130.5 | 133.6 | 97.2 | 57.4 | 24.1 | 5.0 |
| **1987** | 82.6 | 90.9 | 69.9 | 123.0 | 126.1 | 91.6 | 53.1 | 22.4 | 4.7 |
| **1986** | 79.0 | 88.5 | 67.0 | 121.1 | 118.0 | 84.6 | 50.0 | 20.6 | 4.4 |
| **1985** | 77.0 | 87.6 | 66.8 | 117.9 | 113.1 | 79.3 | 47.5 | 20.4 | 4.3 |
| **1984** | 75.2 | 86.1 | 66.5 | 113.6 | 107.9 | 77.8 | 43.8 | 19.4 | 4.3 |
| **1983** | 76.2 | 85.5 | 66.8 | 111.9 | 107.2 | 79.7 | 43.8 | 19.4 | 4.8 |
| **1982** | 77.9 | 85.1 | 66.3 | 112.7 | 109.3 | 82.7 | 44.1 | 19.5 | 5.2 |
| **1981** | 79.4 | 85.0 | 65.9 | 114.2 | 110.7 | 83.1 | 45.5 | 19.6 | 5.6 |
| **1980** | 81.1 | 87.9 | 66.8 | 118.2 | 112.3 | 81.4 | 46.7 | 19.0 | 5.5 |
| **Race of child** |  |  |  |  |  |  |  |  |  |
| **Estimated4** |  |  |  |  |  |  |  |  |  |
| **1980** | 83.2 | 90.3 | 70.6 | 121.8 | 116.0 | 82.9 | 47.0 | 18.5 | 5.5 |
| **1979** | 83.0 | 91.0 | 71.0 | 123.3 | 114.1 | 80.0 | 44.8 | 19.3 | 5.9 |
| **1978** | 81.1 | 87.9 | 68.8 | 119.6 | 111.4 | 79.6 | 43.9 | 18.5 | 6.2 |
| **1977** | 82.6 | 90.9 | 73.0 | 121.7 | 110.1 | 78.6 | 45.7 | 19.0 | 6.6 |
| **1976** | 81.6 | 89.7 | 73.5 | 117.9 | 107.2 | 78.0 | 45.0 | 19.2 | 7.0 |
| **1975** | 84.2 | 93.5 | 76.8 | 123.8 | 108.0 | 75.7 | 50.0 | 20.5 | 7.2 |
| **1974** | 85.5 | 93.8 | 78.6 | 122.2 | 109.8 | 80.3 | 51.8 | 24.3 | 6.7 |
| **1973** | 88.6 | 94.9 | 81.2 | 120.5 | 116.0 | 84.5 | 57.8 | 27.6 | 7.7 |
| **1972** | 91.6 | 98.2 | 82.8 | 128.2 | 121.2 | 88.3 | 57.4 | 30.4 | 8.5 |
| **1971** | 96.1 | 98.6 | 80.7 | 135.2 | 130.6 | 99.6 | 68.6 | 32.7 | 10.1 |
| **1970** | 95.5 | 96.9 | 77.9 | 136.4 | 131.5 | 100.9 | 71.8 | 32.9 | 10.4 |
| **1969** | 90.6 | 90.3 | 72.0 | 128.4 | 125.3 | 99.5 | 70.1 | 34.3 | 10.1 |

**NOTE:** Rates f[illegible]1-89 have been revised and differ, therefore, from rates published in Vital Statistics of the United States, Vol. 1, Natality, for 1991 and earlier years.

(1) Rates computed by relating births to unmarried women, regardless of age of mother to unmarried women aged 15-44 years.

(2) Rates computed by relating births to unmarried women aged 40 and over to unmarried women aged 40-44 years. Rates by race for years prior to 1969 are computed by relating births to unmarried women aged 35 years and over to unmarried women aged 35-44 years.

(3) Data for states in which marital status was not reported have been inferred from other items on the birth certificate and included with data from the reporting states.

(4) Births to unmarried women are estimated for the United States from data for registration areas in which marital status of mother was reported.

data for registration areas in which marital status of mother was reported.

Sources: Ventura SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. Monthly Vital Statistics Report, Vol. 44, No. 3 (Suppl.). 1995.

Venture SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995.

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## Table I-3. Ratios of births to unmarried women by age of mother and race: United States, 1940 and 1950-93

(Ratios are live births to unmarried women per 1,000 total live births in specified group.)

| Year and race | All ages | Age of mother | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Under 15 years | 15-19 years | | | | | | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
| | | | Total | 15 years | 16 years | 17 years | 18 years | 19 years | | | | | |
| ALL RACES | | | | | | | | | | | | | |
| Reported/Inferred[1] | | | | | | | | | | | | | |
| 1993 | 310.0 | 913.4 | 713.3 | 869.6 | 818.1 | 765.2 | 704.6 | 625.7 | 422.4 | 207.1 | 146.8 | 155.6 | 181.2 |
| 1992 | 301.3 | 913.3 | 700.2 | 869.9 | 815.2 | 755.0 | 692.4 | 609.8 | 407.0 | 198.0 | 143.0 | 152.2 | 177.0 |
| 1991 | 295.3 | 912.9 | 688.0 | 870.6 | 810.6 | 748.6 | 681.2 | 593.6 | 393.8 | 192.3 | 140.0 | 146.1 | 174.3 |
| 1990 | 280.3 | 915.8 | 670.7 | 868.8 | 799.8 | 737.0 | 661.9 | 576.7 | 369.3 | 180.1 | 133.4 | 139.0 | 169.7 |
| 1989 | 270.8 | 923.9 | 665.9 | 873.8 | 806.5 | 733.1 | 656.8 | 561.9 | 350.9 | 170.6 | 126.2 | 132.8 | 159.0 |
| 1988 | 257.1 | 935.7 | 653.3 | 877.0 | 799.7 | 725.8 | 642.3 | 538.7 | 328.7 | 158.5 | 118.1 | 127.7 | 155.5 |
| 1987 | 244.9 | 929.4 | 633.7 | 867.0 | 789.8 | 706.9 | 615.3 | 516.5 | 307.9 | 147.4 | 110.7 | 122.1 | 152.1 |
| 1986 | 233.9 | 925.2 | 607.7 | 857.3 | 767.7 | 674.4 | 590.7 | 493.8 | 286.9 | 138.1 | 103.9 | 117.1 | 147.8 |
| 1985 | 220.2 | 918.4 | 579.5 | 837.1 | 741.1 | 653.6 | 562.9 | 464.7 | 263.2 | 126.5 | 96.7 | 112.2 | 139.8 |
| 1984 | 210.0 | 910.7 | 555.9 | 826.2 | 728.9 | 633.5 | 539.1 | 437.4 | 244.6 | 117.5 | 90.0 | 106.8 | 137.8 |
| 1983 | 202.8 | 904.0 | 534.0 | 813.3 | 715.6 | 615.0 | 516.5 | 411.4 | 228.9 | 110.2 | 86.3 | 100.9 | 134.2 |
| 1982 | 194.3 | 892.3 | 507.3 | 802.8 | 693.1 | 585.5 | 486.4 | 386.0 | 213.5 | 103.3 | 81.9 | 97.8 | 134.2 |
| 1981 | 189.2 | 891.7 | 491.5 | 791.7 | 674.0 | 568.4 | 469.7 | 370.9 | 203.7 | 96.8 | 77.9 | 97.8 | 126.6 |
| 1980 | 184.3 | 887.4 | 475.9 | 777.5 | 654.9 | 548.5 | 451.1 | 357.4 | 193.5 | 89.9 | 74.5 | 93.7 | 120.5 |
| Estimated[2] | | | | | | | | | | | | | |
| 1980 | 178.1 | 904.7 | 475.2 | 787.8 | 659.8 | 550.3 | 448.7 | 353.4 | 187.5 | 82.9 | 65.4 | 81.0 | 107.0 |
| 1979 | 171.1 | 887.9 | 460.8 | 768.2 | 645.9 | 527.8 | 433.2 | 339.7 | 176.8 | 75.4 | 60.5 | 78.5 | 103.2 |
| 1978 | 163.2 | 872.6 | 441.1 | 741.4 | 619.2 | 504.2 | 410.4 | 322.4 | 163.7 | 69.0 | 55.9 | 74.5 | 96.3 |
| 1977 | 155.0 | 881.7 | 428.7 | 743.0 | 605.3 | 492.1 | 396.0 | 301.8 | 147.1 | 61.4 | 53.0 | 72.8 | 90.3 |
| 1976 | 147.8 | 863.5 | 402.7 | 719.0 | 585.6 | 461.6 | 363.5 | 277.6 | 133.2 | 57.0 | 53.6 | 74.4 | 89.1 |
| 1975 | 142.5 | 870.1 | 382.1 | 711.5 | 558.4 | 431.1 | 342.6 | 260.5 | 122.5 | 53.6 | 52.7 | 70.2 | 82.3 |
| 1974 | 132.3 | 846.0 | 354.0 | 685.1 | 528.3 | 399.8 | 312.9 | 234.9 | 110.7 | 48.6 | 49.9 | 69.4 | 77.7 |
| 1973 | 129.8 | 847.5 | 339.2 | 661.8 | 508.4 | 387.2 | 293.1 | 224.0 | 108.2 | 48.5 | 50.0 | 64.7 | 76.9 |
| 1972 | 123.7 | 819.4 | 328.3 | 666.9 | 500.6 | 377.2 | 284.7 | 215.2 | 101.9 | 45.8 | 50.7 | 60.9 | 69.0 |
| 1971 | 112.9 | 820.5 | 309.1 | 655.6 | 491.2 | 365.3 | 270.8 | 201.7 | 92.4 | 43.2 | 47.5 | 57.8 | 65.7 |
| 1970 | 106.9 | 808.4 | 295.3 | 433.8 | 346.8 | 271.0 | 208.6 | 162.3 | 89.3 | 40.8 | 44.6 | 52.2 | 56.5 |
| 1969 | 100.2 | 792.9 | 278.2 | 627.8 | 461.1 | 334.6 | 245.0 | 184.9 | 86.2 | 39.3 | 41.8 | 48.5 | 53.5 |
| 1968 | 96.9 | 810.2 | 267.2 | 624.5 | 452.8 | 326.6 | 235.9 | 176.3 | 82.6 | 38.9 | 41.0 | 47.1 | 51.4 |
| 1967 | 90.3 | 803.0 | 242.1 | 597.0 | 425.7 | 302.9 | 213.6 | 156.3 | 77.5 | 39.8 | 39.4 | 44.4 | 46.3 |
| 1966 | 83.9 | 762.8 | 218.5 | 577.9 | 406.1 | 278.4 | 191.9 | 139.0 | 71 3 | 40.7 | 38.8 | 41.6 | 43.1 |
| 1965 | 77.4 | 785.3 | 208.3 | 563.6 | 374.1 | 257.5 | 175.5 | 132.9 | 67.8 | 39.8 | 37.0 | 40.3 | 42.9 |
| 1964 | 68.5 | 742.1 | 190.2 | 529.9 | 349.2 | 232.4 | 160.6 | 117.5 | 61.1 | 36.1 | 33.3 | 35.8 | 39.0 |
| 1963 | 63.3 | 711.1 | 173.6 | 501.8 | 315.4 | 216.4 | 152.7 | 106.3 | 56.8 | 34.6 | 32.4 | 33.8 | 37.3 |
| 1962 | 58.8 | 694.8 | 157.3 | 469.5 | 306.1 | 204.6 | 138.2 | 96.2 | 53.6 | 32.5 | 31.0 | 33.2 | 34.2 |
| 1961 | 56.3 | 696.9 | 154.9 | 465.9 | 291.8 | 194.4 | 136.1 | 96.7 | 51.2 | 31.2 | 29.2 | 31.2 | 32.2 |
| 1960 | 52.7 | 678.5 | 148.4 | 443.9 | 281.3 | 182.4 | 129.2 | 91.6 | 47.7 | 29.4 | 27.5 | 29.5 | 31.0 |
| 1959 | 52.0 | 678.9 | 148.0 | 437.2 | 275.3 | 186.4 | 126.9 | 90.1 | 47.9 | 29.1 | 27.1 | 28.9 | 29.5 |
| 1958 | 49.6 | 661.9 | 143.3 | 426.2 | 269.1 | 177.3 | 123.5 | 87.9 | 45.9 | 27.8 | 26.3 | 27.6 | 28.8 |
| 1957 | 47.4 | 660.9 | 138.9 | 426.1 | 268.1 | 173.7 | 120.0 | 81.6 | 44.4 | 26.1 | 24.9 | 25.7 | 29.1 |
| 1956 | 46.5 | 660.8 | 139.9 | 421.6 | 268.1 | 173.2 | 120.9 | 84.3 | 44.4 | 26.0 | 23.4 | 24.8 | 26.4 |
| 1955 | 45.3 | 662.9 | 142.3 | 427.7 | 265.1 | 178.4 | 124.4 | 87.2 | 43.7 | 25.0 | 22.3 | 24.0 | 25.9 |

**Table I-3. Ratios of births to unmarried women by age of mother and race: United States, 1940 and 1950-93...continued**

[Ratios are live births to unmarried women per 1,000 total live births in specified group.]

| Year and race | All ages | Age of mother |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | Under 15 years | 15-19 years |  |  |  |  |  | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
|  |  |  | Total | 15 years | 16 years | 17 years | 18 years | 19 years |  |  |  |  |  |
| ALL RACES...cont. |  |  |  |  | 15-17 years |  | 18-19 years |  |  |  |  |  |  |
| 1954 | 44.0 | 643.8 | 140.6 |  | 231.5 |  | 100.7 |  | 42.4 | 23.7 | 21.5 | 23.4 | 23.9 |
| 1953 | 41.2 | 639.6 | 134.9 |  | 223.0 |  | 96.4 |  | 40.0 | 22.1 | 19.4 | 21.5 | 23.8 |
| 1952 | 39.1 | 645.3 | 134.0 |  | 228.4 |  | 92.2 |  | 37.5 | 20.3 | 18.2 | 20.3 | 19.2 |
| 1951 | 39.1 | 638.0 | 129.4 |  | 217.6 |  | 91.2 |  | 36.6 | 20.5 | 18.6 | 20.3 | 23.0 |
| 1950 | 39.8 | 637.3 | 133.5 |  | 226.1 |  | 93.6 |  | 38.1 | 20.5 | 18.1 | 20.4 | 21.3 |
| 1940 | 37.9 | 644.8 | 134.7 | --- | --- | --- | --- | --- | 36.8 | 16.3 | 13.0 | 14.9 | 15.0 |
| WHITE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Race of mother |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reported/Inferred1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 235.6 | 845.9 | 623.4 | 797.3 | 740.1 | 684.0 | 619.0 | 534.6 | 333.5 | 151.9 | 105.6 | 117.1 | 148.8 |
| 1992 | 225.5 | 848.3 | 603.5 | 793.2 | 733.4 | 669.0 | 600.0 | 511.0 | 317.1 | 142.7 | 101.5 | 114.0 | 146.0 |
| 1991 | 218.3 | 837.5 | 587.6 | 795.9 | 726.7 | 656.4 | 584.4 | 492.8 | 302.2 | 136.7 | 98.4 | 108.6 | 141.2 |
| 1990 | 203.5 | 835.7 | 563.9 | 785.4 | 707.1 | 640.0 | 559.3 | 471.8 | 277.6 | 125.5 | 92.5 | 103.3 | 140.8 |
| 1989 | 192.2 | 846.7 | 552.9 | 786.2 | 705.9 | 629.3 | 549.8 | 452.3 | 257.0 | 115.9 | 85.8 | 97.9 | 130.9 |
| 1988 | 179.7 | 865.0 | 537.3 | 785.9 | 696.0 | 618.1 | 532.0 | 428.8 | 234.5 | 106.0 | 79.6 | 94.0 | 126.5 |
| 1987 | 168.9 | 846.2 | 513.7 | 770.2 | 683.8 | 596.7 | 502.0 | 400.4 | 215.8 | 97.2 | 74.2 | 89.1 | 124.1 |
| 1986 | 159.2 | 836.2 | 483.1 | 755.6 | 651.4 | 558.1 | 471.6 | 376.9 | 198.0 | 89.9 | 68.8 | 85.9 | 119.7 |
| 1985 | 146.7 | 824.1 | 448.1 | 721.6 | 617.6 | 528.3 | 436.0 | 342.8 | 177.2 | 80.7 | 63.3 | 80.7 | 109.0 |
| 1984 | 135.8 | 807.6 | 417.0 | 703.2 | 594.0 | 499.5 | 403.9 | 312.0 | 159.7 | 72.3 | 57.6 | 76.3 | 105.7 |
| 1983 | 129.4 | 799.5 | 393.3 | 682.0 | 574.6 | 475.8 | 380.8 | 287.8 | 146.2 | 66.9 | 54.9 | 71.7 | 102.3 |
| 1982 | 122.5 | 776.9 | 366.9 | 664.6 | 547.8 | 443.2 | 351.2 | 267.1 | 134.2 | 62.0 | 51.3 | 68.6 | 102.9 |
| 1981 | 117.6 | 764.9 | 350.1 | 644.2 | 522.7 | 424.1 | 335.2 | 252.0 | 125.9 | 57.1 | 48.7 | 36.0 | 91.2 |
| 1980 | 112.0 | 753.8 | 331.4 | 616.2 | 496.0 | 397.7 | 314.1 | 240.1 | 116.8 | 51.6 | 45.9 | 63.6 | 85.8 |
| Race of child |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Estimated2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1980 | 101.5 | 767.2 | 323.4 | 620.9 | 493.9 | 391.8 | 304.1 | 229.7 | 105.4 | 42.0 | 34.6 | 48.6 | 64.7 |
| 1979 | 93.6 | 749.7 | 303.3 | 593.8 | 470.7 | 364.3 | 285.2 | 210.8 | 94.6 | 36.7 | 31.5 | 44.8 | 64.1 |
| 1978 | 87.1 | 731.4 | 285.5 | 564.9 | 446.3 | 341.3 | 261.9 | 195.7 | 84.2 | 32.9 | 28.4 | 41.2 | 59.6 |
| 1977 | 81.8 | 727.9 | 273.1 | 562.1 | 428.6 | 328.9 | 250.0 | 178.5 | 74.6 | 29.0 | 26.9 | 39.1 | 55.8 |
| 1976 | 76.8 | 692.5 | 248.2 | 528.1 | 399.2 | 295.0 | 221.9 | 161.4 | 66.3 | 27.3 | 28.3 | 41.8 | 49.8 |
| 1975 | 73.0 | 709.6 | 229.0 | 519.4 | 369.6 | 265.1 | 201.7 | 147.8 | 60.9 | 26.2 | 27.0 | 38.6 | 45.9 |
| 1974 | 65.4 | 653.1 | 202.3 | 475.9 | 335.2 | 233.3 | 176.3 | 129.0 | 54.4 | 23.2 | 24.0 | 35.6 | 42.8 |
| 1973 | 63.9 | 652.1 | 190.9 | 442.6 | 312.2 | 221.0 | 166.9 | 122.8 | 53.4 | 23.6 | 24.3 | 33.0 | 41.1 |
| 1972 | 60.4 | 590.4 | 181.1 | 431.1 | 293.4 | 215.1 | 156.2 | 121.2 | 51.0 | 22.0 | 24.4 | 30.5 | 35.3 |
| 1971 | 56.1 | 605.3 | 170.1 | 416.8 | 282.4 | 205.0 | 154.3 | 114.8 | 48.8 | 20.9 | 22.8 | 28.7 | 35.8 |
| 1970 | 56.6 | 578.7 | 171.0 | 416.8 | 286.7 | 205.7 | 156.1 | 119.6 | 51.8 | 20.7 | 21.2 | 27.0 | 32.5 |
| 1969 | 54.7 | 570.0 | 162.1 | 391.4 | 277.6 | 196.5 | 145.6 | 117.2 | 52.7 | 20.8 | 21.4 | 25.5 | 29.7 |
| 1968 | 53.3 | 610.1 | 158.0 | 387.1 | 271.9 | 192.3 | 144.3 | 116.0 | 51.0 | 20.4 | 20.5 | 24.5 | 28.4 |
| 1967 | 48.7 | 615.7 | 138.5 | 355.4 | 236.8 | 176.7 | 129.0 | 100.6 | 47.0 | 20.3 | 18.4 | 22.2 | 25.7 |
| 1966 | 44.4 | 525.1 | 123.6 | 341.2 | 227.1 | 160.2 | 112.7 | 89.8 | 41.6 | 19.9 | 18.3 | 21.4 | 23.1 |
| 1965 | 39.6 | 572.8 | 114.3 | 321.6 | 201.1 | 141.0 | 104.4 | 80.5 | 38.4 | 18.8 | 16.1 | 19.0 | 22.2 |

## Table I-3. Ratios of births to unmarried women by age of mother and race: United States, 1940 and 1950-93...continued

(Ratios are live births to unmarried women per 1,000 total live births in specified group.)

| Year and race | All ages | Age of mother | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Under 15 years | 15-19 years | | | | | | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
| | | | Total | 15 years | 16 years | 17 years | 18 years | 19 years | | | | | |
| WHITE...cont. | | | | | | | | | | | | | |
| 1964 | 33.9 | 523.2 | 101.7 | 300.3 | 184.3 | 132.9 | 88.7 | 67.8 | 33.1 | 16.5 | 13.7 | 16.9 | 20.7 |
| 1963 | 30.4 | 487.4 | 89.9 | 294.9 | 171.9 | 112.8 | 81.4 | 59.8 | 29.7 | 14.8 | 13.5 | 15.4 | 19.0 |
| 1962 | 27.0 | 480.1 | 78.2 | 256.2 | 152.1 | 103.5 | 72.4 | 51.8 | 26.2 | 13.3 | 12.9 | 14.5 | 17.1 |
| 1961 | 25.3 | 498.6 | 76.5 | 260.1 | 145.6 | 96.1 | 71.3 | 51.5 | 24.2 | 12.5 | 11.4 | 13.6 | 16.6 |
| 1960 | 22.9 | 475.4 | 71.6 | 238.7 | 140.2 | 89.9 | 65.7 | 46.2 | 21.9 | 11.4 | 10.2 | 12.7 | 15.8 |
| 1959 | 22.1 | 466.6 | 69.4 | 224.2 | 134.7 | 88.5 | 61.3 | 45.0 | 21.8 | 11.1 | 9.8 | 11.9 | 13.5 |
| 1958 | 20.9 | 453.2 | 65.9 | 215.0 | 125.2 | 83.6 | 57.7 | 43.4 | 20.6 | 10.4 | 9.9 | 11.3 | 13.7 |
| 1957 | 19.6 | 415.4 | 62.7 | 208.6 | 123.5 | 80.3 | 58.0 | 38.8 | 19.5 | 9.9 | 9.5 | 9.6 | 14.6 |
| 1956 | 19.0 | 425.9 | 62.6 | 200.1 | 119.1 | 80.1 | 57.6 | 41.0 | 19.6 | 9.6 | 8.5 | 10.4 | 13.5 |
| 1955 | 18.6 | 421.3 | 63.6 | 204.7 | 120.9 | 80.1 | 58.2 | 42.3 | 19.3 | 9.3 | 8.5 | 10.0 | 12.5 |
| | | | | | 15-17 years | | | 18-19 years | | | | | |
| 1954 | 18.2 | 368.3 | 63.1 | | 102.2 | | 48.5 | | 19.1 | 9.1 | 8.2 | 10.2 | 12.6 |
| 1953 | 16.9 | 431.5 | 59.0 | | 95.7 | | 45.3 | | 18.1 | 8.4 | 7.7 | 9.1 | 10.6 |
| 1952 | 16.3 | 381.8 | 58.4 | | 96.3 | | 44.1 | | 17.6 | 7.9 | 7.2 | 9.3 | 9.7 |
| 1951 | 16.3 | 376.6 | 57.9 | | 97.3 | | 43.5 | | 16.7 | 8.2 | 7.4 | 8.5 | 10.6 |
| 1950 | 17.5 | 419.4 | 62.4 | | 102.2 | | 47.5 | | 18.3 | 8.7 | 7.9 | 9.0 | 10.2 |
| 1940 | 19.5 | 443.7 | 69.7 | --- | --- | --- | --- | --- | 22.7 | 8.9 | 6.0 | 7.3 | 6.5 |
| ALL OTHER | | | | | | | | | | | | | |
| Race of mother | | | | | | | | | | | | | |
| Reported/Inferred1 | | | | | | | | | | | | | |
| 1993 | 585.7 | 970.6 | 906.3 | 959.4 | 948.1 | 929.5 | 903.6 | 858.3 | 705.7 | 451.1 | 350.2 | 330.7 | 311.9 |
| 1992 | 582.5 | 964.2 | 903.9 | 962.0 | 948.3 | 928.2 | 900.0 | 856.9 | 693.0 | 446.4 | 349.1 | 326.1 | 304.4 |
| 1991 | 582.2 | 970.3 | 899.7 | 962.0 | 946.0 | 930.1 | 897.4 | 847.3 | 688.2 | 445.2 | 347.3 | 320.5 | 306.4 |
| 1990 | 571.1 | 975.3 | 896.8 | 964.5 | 946.2 | 926.9 | 893.9 | 844.5 | 668.9 | 435.0 | 339.1 | 306.5 | 289.8 |
| 1989 | 566.4 | 976.1 | 897.5 | 968.4 | 954.8 | 931.6 | 892.7 | 836.4 | 656.3 | 426.4 | 329.9 | 297.6 | 274.2 |
| 1988 | 554.7 | 981.3 | 896.4 | 973.9 | 957.8 | 934.4 | 891.1 | 825.2 | 643.1 | 412.2 | 314.1 | 283.1 | 273.4 |
| 1987 | 547.3 | 984.2 | 891.5 | 973.4 | 958.4 | 928.7 | 882.6 | 819.8 | 631.1 | 399.7 | 303.2 | 276.4 | 266.9 |
| 1986 | 539.7 | 985.0 | 883.1 | 972.6 | 953.6 | 920.5 | 873.5 | 810.3 | 618.0 | 388.2 | 292.1 | 263.6 | 254.3 |
| 1985 | 529.4 | 983.2 | 878.0 | 973.2 | 951.2 | 920.6 | 868.9 | 802.5 | 599.7 | 371.1 | 278.9 | 259.0 | 259.7 |
| 1984 | 523.2 | 980.6 | 872.1 | 971.2 | 950.7 | 916.0 | 865.3 | 790.7 | 584.3 | 359.8 | 267.5 | 252.1 | 259.7 |
| 1983 | 515.0 | 979.5 | 864.5 | 973.3 | 948.7 | 912.1 | 857.2 | 775.0 | 567.0 | 345.1 | 256.5 | 240.5 | 252.1 |
| 1982 | 502.5 | 979.5 | 847.7 | 965.1 | 941.1 | 899.5 | 837.2 | 750.2 | 546.3 | 328.9 | 245.6 | 235.8 | 244.8 |
| 1981 | 499.0 | 983.4 | 840.9 | 969.3 | 937.6 | 893.2 | 829.2 | 739.3 | 536.3 | 319.2 | 235.4 | 230.0 | 246.5 |
| 1980 | 498.2 | 981.4 | 834.6 | 965.9 | 931.5 | 888.4 | 818.6 | 729.6 | 526.7 | 309.4 | 228.7 | 225.6 | 239.1 |
| Race of child | | | | | | | | | | | | | |
| Estimated2 | | | | | | | | | | | | | |
| 1980 | 489.5 | 1000.0 | 834.2 | 969.8 | 939.9 | 892.1 | 818.0 | 722.5 | 518.3 | 300.9 | 220.4 | 213.2 | 226.2 |
| 1979 | 488.1 | 984.6 | 825.2 | 968.2 | 933.3 | 877.8 | 806.1 | 716.7 | 509.0 | 286.6 | 215.3 | 220.9 | 235.7 |
| 1978 | 475.6 | 974.4 | 803.2 | 953.7 | 915.2 | 853.4 | 779.7 | 693.5 | 487.2 | 269.7 | 207.9 | 213.9 | 221.5 |
| 1977 | 464.9 | 987.6 | 794.1 | 953.3 | 905.3 | 849.5 | 764.6 | 672.9 | 456.7 | 251.7 | 200.4 | 211.4 | 225.7 |
| 1976 | 451.5 | 989.2 | 769.9 | 949.3 | 902.8 | 833.4 | 728.8 | 630.7 | 425.3 | 239.2 | 194.8 | 209.5 | 226.2 |
| 1975 | 441.7 | 990.9 | 747.2 | 943.2 | 886.8 | 806.5 | 704.7 | 601.1 | 398.5 | 226.8 | 195.3 | 203.1 | 211.4 |

**Table I-3. Ratios of births to unmarried women by age of mother and race: United States, 1940 and 1950-93...continued**

(Ratios are live births to unmarried women per 1,000 total live births in specified group.)

| Year and race | All ages | Age of mother: Under 15 years | 15-19 years: Total | 15 years | 16 years | 17 years | 18 years | 19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL OTHER...cont. | | | | | | | | | | | | | |
| 1974 | 427.3 | 976.5 | 717.1 | 933.0 | 860.9 | 773.5 | 670.2 | 564.0 | 372.3 | 219.7 | 196.8 | 208.5 | 209.1 |
| 1973 | 416.9 | 968.1 | 690.6 | 911.9 | 835.4 | 752.6 | 627.5 | 537.5 | 358.9 | 217.5 | 194.4 | 201.5 | 199.7 |
| 1972 | 402.6 | 958.8 | 678.0 | 911.8 | 829.1 | 729.9 | 624.6 | 518.8 | 343.2 | 206.6 | 190.2 | 192.0 | 188.5 |
| 1971 | 373.3 | 953.3 | 651.7 | 891.4 | 817.8 | 716.3 | 595.0 | 493.9 | 316.4 | 193.4 | 177.3 | 185.4 | 182.3 |
| 1970 | 349.3 | 941.9 | 613.5 | 872.2 | 782.4 | 677.7 | 554.0 | 461.7 | 295.0 | 180.6 | 172.8 | 168.8 | 169.1 |
| 1969 | 325.1 | 913.9 | 574.0 | 846.1 | 748.9 | 636.1 | 517.2 | 425.2 | 275.0 | 170.8 | 156.4 | 158.6 | 158.7 |
| 1968 | 312.0 | 907.7 | 549.7 | 836.3 | 722.3 | 611.7 | 492.2 | 398.6 | 264.0 | 168.0 | 155.3 | 157.2 | 156.5 |
| 1967 | 293.8 | 891.6 | 521.1 | 800.3 | 699.9 | 574.1 | 464.3 | 376.3 | 253.2 | 164.4 | 151.5 | 155.3 | 133.0 |
| 1966 | 276.5 | 878.8 | 500.9 | 790.0 | 681.9 | 548.1 | 443.8 | 361.3 | 237.2 | 167.5 | 147.7 | 145.9 | 137.2 |
| 1965 | 263.2 | 864.0 | 492.0 | 781.5 | 659.7 | 545.2 | 429.4 | 349.4 | 229.9 | 162.8 | 149.0 | 148.8 | 140.1 |
| 1964 | 245.0 | 856.0 | 468.3 | 759.1 | 651.8 | 517.2 | 404.5 | 331.5 | 220.4 | 155.0 | 140.7 | 136.2 | 125.2 |
| 1963 | 235.5 | 852.4 | 455.6 | 740.1 | 607.5 | 502.3 | 409.4 | 326.8 | 213.9 | 151.2 | 138.3 | 133.8 | 134.6 |
| 1962 | 227.8 | 842.0 | 439.3 | 724.3 | 607.8 | 490.9 | 390.6 | 316.9 | 212.5 | 147.2 | 134.6 | 136.6 | 120.7 |
| 1961 | 223.4 | 816.5 | 439.2 | 716.4 | 592.2 | 489.1 | 396.5 | 319.5 | 209.4 | 143.5 | 132.0 | 129.9 | 126.7 |
| 1960 | 215.8 | 822.4 | 421.5 | 700.7 | 577.8 | 469.3 | 376.2 | 306.2 | 199.6 | 141.3 | 129.9 | 127.7 | 116.8 |
| 1959 | 218.0 | 808.8 | 426.5 | 701.6 | 582.4 | 479.7 | 377.2 | 306.2 | 202.3 | 143.4 | 133.4 | 130.1 | 124.4 |
| 1958 | 212.3 | 825.0 | 419.0 | 702.1 | 569.4 | 459.9 | 375.8 | 301.9 | 194.2 | 141.6 | 130.9 | 127.1 | 119.7 |
| 1957 | 206.7 | 811.7 | 409.1 | 689.5 | 563.7 | 449.0 | 360.5 | 288.7 | 190.5 | 135.9 | 125.6 | 127.6 | 117.4 |
| 1956 | 204.0 | 798.4 | 404.8 | 675.2 | 564.0 | 453.2 | 357.7 | 282.8 | 189.7 | 136.0 | 123.4 | 116.7 | 111.6 |
| 1955 | 202.4 | 800.6 | 406.6 | 671.8 | 549.1 | 455.3 | 363.1 | 292.8 | 189.4 | 133.4 | 119.9 | 117.1 | 108.6 |
| | | | | | 15-17 years | | 18-19 years | | | | | | |
| 1954 | 198.5 | 797.7 | 399.8 | | 516.4 | | 318.1 | | 184.6 | 127.2 | 119.7 | 113.7 | 94.8 |
| 1953 | 191.1 | 779.9 | 389.0 | | 501.0 | | 309.6 | | 177.3 | 122.1 | 108.7 | 108.7 | 103.4 |
| 1952 | 183.4 | 783.8 | 384.1 | | 513.7 | | 290.9 | | 163.7 | 116.2 | 106.5 | 99.9 | 79.3 |
| 1951 | 182.8 | 771.4 | 365.5 | | 472.5 | | 289.1 | | 162.6 | 117.4 | 109.4 | 102.5 | 98.5 |
| 1950 | 179.6 | 745.8 | 358.4 | | 475.7 | | 275.1 | | 159.0 | 114.7 | 102.4 | 98.5 | 92.9 |
| 1940 | 168.3 | 751.2 | 344.4 | --- | --- | --- | --- | --- | 136.4 | 88.3 | 80.1 | 75.3 | 77.4 |
| BLACK | | | | | | | | | | | | | |
| Race of mother Reported/Inferred1 | | | | | | | | | | | | | |
| 1993 | 686.7 | 980.7 | 929.3 | 970.1 | 961.1 | 947.6 | 927.1 | 890.9 | 766.7 | 558.2 | 468.8 | 448.1 | 425.2 |
| 1992 | 681.3 | 976.4 | 926.4 | 970.0 | 961.3 | 945.4 | 923.4 | 888.5 | 752.4 | 549.8 | 467.0 | 447.0 | 421.2 |
| 1991 | 679.4 | 981.1 | 923.0 | 972.5 | 960.2 | 947.9 | 922.1 | 878.4 | 747.0 | 547.1 | 465.4 | 437.8 | 426.7 |
| 1990 | 665.3 | 984.5 | 919.7 | 975.8 | 959.5 | 945.3 | 918.0 | 874.5 | 726.4 | 532.7 | 451.5 | 419.9 | 399.6 |
| 1989 | 657.2 | 984.5 | 920.5 | 979.2 | 968.4 | 949.6 | 915.1 | 868.5 | 712.3 | 519.2 | 437.6 | 405.9 | 371.7 |
| 1988 | 647.0 | 988.9 | 919.8 | 983.8 | 972.3 | 951.3 | 916.2 | 857.1 | 698.9 | 505.3 | 423.2 | 388.7 | 377.2 |
| 1987 | 634.0 | 990.5 | 913.9 | 982.3 | 970.0 | 945.5 | 907.0 | 850.3 | 685.2 | 486.4 | 402.5 | 372.8 | 365.1 |
| 1986 | 623.7 | 990.2 | 907.0 | 979.7 | 967.5 | 939.3 | 899.3 | 842.4 | 672.2 | 472.5 | 384.3 | 355.5 | 342.1 |
| 1985 | 612.2 | 987.6 | 902.2 | 981.1 | 965.0 | 940.1 | 894.9 | 834.2 | 653.5 | 452.2 | 370.1 | 351.1 | 344.3 |
| 1984 | 602.9 | 985.7 | 896.2 | 977.7 | 963.1 | 936.1 | 890.5 | 822.9 | 637.7 | 438.2 | 352.3 | 334.8 | 333.9 |
| 1983 | 592.2 | 985.2 | 890.0 | 981.2 | 961.7 | 932.6 | 884.5 | 808.8 | 620.7 | 419.4 | 336.9 | 317.5 | 322.2 |

## Table I-3. Ratios of births to unmarried women by age of mother and race: United States, 1940 and 1950-93...continued

(Ratios are live births to unmarried women per 1,000 total live births in specified group.)

| Year and race | All ages | Under 15 years | 15-19 years Total | 15 years | 16 years | 17 years | 18 years | 19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40 years and over |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLACK...cont. | | | | | | | | | | | | | |
| Race of child | | | | | | | | | | | | | |
| Estimated2 | | | | | | | | | | | | | |
| 1982 | 576.9 | 984.1 | 874.8 | 972.7 | 954.4 | 921.4 | 865.7 | 786.4 | 598.8 | 400.1 | 322.3 | 308.2 | 312.8 |
| 1981 | 568.9 | 989.4 | 867.4 | 977.3 | 951.7 | 915.0 | 857.4 | 773.8 | 584.4 | 385.6 | 307.5 | 297.7 | 307.1 |
| 1980 | 561.2 | 985.8 | 856.8 | 973.1 | 943.1 | 904.4 | 843.4 | 759.2 | 569.5 | 367.5 | 295.7 | 284.0 | 295.0 |
| 1980 | 554.6 | 1000.0 | 862.6 | 985.7 | 954.9 | 914.0 | 850.2 | 758.3 | 564.4 | 357.5 | 284.3 | 264.9 | 286.1 |
| 1979 | 546.5 | 993.6 | 851.4 | 971.2 | 945.1 | 900.0 | 833.5 | 749.2 | 549.0 | 338.1 | 272.3 | 269.9 | 275.2 |
| 1978 | 532.0 | 972.3 | 829.1 | 958.1 | 927.3 | 877.1 | 808.9 | 724.6 | 526.1 | 319.9 | 261.7 | 261.7 | 279.3 |
| 1977 | 517.4 | 987.5 | 819.6 | 957.7 | 922.6 | 870.1 | 792.4 | 704.0 | 494.8 | 297.4 | 249.7 | 254.5 | 258.1 |
| 1976 | 503.0 | 990.8 | 797.1 | 956.0 | 917.0 | 857.6 | 761.1 | 663.1 | 460.6 | 284.9 | 239.9 | 251.2 | 252.8 |
| 1975 | 487.9 | 984.3 | 768.7 | 947.7 | 896.4 | 826.0 | 726.2 | 627.9 | 429.8 | 268.4 | 241.0 | 238.9 | 231.0 |
| 1974 | 470.9 | 973.8 | 737.1 | 937.2 | 875.4 | 790.5 | 689.9 | 588.4 | 400.9 | 261.7 | 237.8 | 241.1 | 226.7 |
| 1973 | 457.5 | 964.3 | 709.8 | 914.6 | 849.2 | 769.8 | 648.5 | 560.7 | 386.3 | 257.0 | 233.4 | 229.0 | 231.8 |
| 1972 | 439.1 | 964.3 | 695.7 | 916.3 | 839.0 | 743.5 | 644.2 | 537.5 | 369.5 | 240.5 | 221.9 | 216.3 | 220.2 |
| 1971 | 405.3 | 949.9 | 669.3 | 897.8 | 826.3 | 732.2 | 611.9 | 513.2 | 338.8 | 221.3 | 204.5 | 207.0 | 185.2 |
| 1970 | 375.8 | 934.8 | 627.4 | 883.0 | 785.8 | 688.9 | 570.0 | 477.7 | 312.8 | 202.7 | 196.4 | 186.0 | 183.4 |
| 1969 | 348.7 | 917.3 | 586.6 | 851.0 | 754.6 | 645.3 | 530.6 | 438.6 | 290.2 | 190.2 | 176.4 | 174.1 | 170.9 |

1 Data for states in which marital status was not reported have been inferred from other items on the birth certificate and included with data from the reporting states.

Sources: Ventura SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics. 21(53). 1995.

Ventura, SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. Monthly Vital Statistics Report, Vol. 44, No.3 (Suppl.). 1995.

## Table II-1. Estimated Birth Rates for Unmarried Women by Hispanic Origin and Age of Mother: United States, 1990-93

[Rates per 1,000 unmarried women in specified group. For method of estimation, see reference below]

| Year and origin | Age of mother | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 15-19 | | | | | | | |
| | *15-44 years (1)* | *Total* | *15-17 years* | *18-19 years* | *20-24 years* | *25-29 years* | *30-34 years* | *35-39 years* | *40-44 years (2)* |
| Hispanic | | | | | | | | | |
| 1993 | 95.2 | 74.7 | 51.9 | 114.6 | 140.5 | 137.7 | 90.9 | 47.8 | 14.1 |
| 1992 | 95.3 | 72.9 | 51.0 | 110.5 | 142.2 | 138.3 | 91.8 | 48.1 | 14.5 |
| 1991 | 93.7 | 72.4 | 50.5 | 109.6 | 135.4 | 137.5 | 89.1 | 47.7 | 14.2 |
| 1990 | 89.6 | 65.9 | 45.9 | 98.9 | 129.8 | 131.7 | 88.1 | 50.8 | 13.7 |
| Non-Hispanic (3) | | | | | | | | | |
| 1993 | 39.8 | 40.5 | 27.7 | 61.0 | 61.3 | 48.2 | 32.9 | 16.2 | 3.6 |
| 1992 | 39.7 | 40.8 | 27.6 | 61.7 | 60.5 | 47.8 | 32.4 | 16.0 | 3.3 |
| 1991 | 39.9 | 41.3 | 28.3 | 60.4 | 60.6 | 48.3 | 32.8 | 15.2 | 3.0 |
| 1990 | 39.2 | 39.7 | 27.5 | 56.5 | 58.4 | 48.7 | 32.6 | 14.6 | 2.9 |

(1) Computed by relating all births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.

(2) Computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.

(3) Includes births with origin of mother not stated.

Sources: Ventura SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995.
Ventura SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1993. National Center for Health Statistics. 1995.

## Table II-2. Number and percent of births to unmarried women by race and Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1992

| *Race and Hispanic origin* | *Number of births* | *Percent of all births* |
|---|---|---|
| All races | 1,224,876 | 30.1 |
| White | 721,986 | 22.6 |
| Black | 458,969 | 68.1 |
| American Indian | 21,825 | 55.3 |
| Chinese | 1,537 | 6.1 |
| Japanese | 890 | 9.8 |
| Hawaiian | 2,688 | 45.7 |
| Filipino | 4,879 | 16.8 |
| Other Asian or Pacific Islander | 12,102 | 14.9 |
| Hispanic, Total[1] | 251,737 | 39.1 |
| Mexican[1] | 156,809 | 36.3 |
| Puerto Rican[1] | 34,275 | 57.5 |
| Cuban[1] | 2,323 | 20.2 |
| Central and South American[1] | 39,115 | 43.9 |
| Other and unknown Hispanic[1] | 19,215 | 37.6 |
| Non-Hispanic[2] | 958,804 | 28.5 |
| White | 468,739 | 18.5 |
| Black | 449,351 | 68.3 |
| Origin not stated | 11,267 | 28.2 |

[1] Persons of Hispanic origin may be of any race.

[2] Includes races other than white and black.

NOTE: Figures by Hispanic origin exclude data for New Hampshire which did not require the reporting of Hispanic origin on the birth certificate.

Source: Ventura SJ. 1995. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21 (53).

## Table II-3. Estimated birth rates for unmarried women by educational attainment, age, race and Hispanic origin of mother: United States, 1992

[Rates are live births to unmarried women per 1,000 unmarried women in specified group.]

| Age, race and Hispanic origin of mother | Total | Years of school completed | | | | |
|---|---|---|---|---|---|---|
| | | *0-8 years* | *9-11 years* | *12 years* | *13-15 years* | *16 years or more* |
| All races[1] | | | | | | |
| 15-44 years[2] | 45.2 | 82.3 | 59.2 | 70.2 | 21.2 | 10.8 |
| 15-17 years | 30.4 | 28.2 | 28.4 | 244.1 | 6.3 | ... |
| 18-24 years | 68.1 | 259.1 | 127.2 | 111.9 | 19.8 | 11.0 |
| 25-29 years | 56.5 | 210.8 | 109.4 | 77.1 | 40.2 | 11.1 |
| 30-34 years | 37.9 | 82.8 | 71.7 | 46.7 | 26.7 | 15.5 |
| 35-39 years | 18.8 | 58.4 | 28.8 | 20.9 | 13.6 | 11.6 |
| 40-44 years[3] | 4.1 | 15.1 | 6.3 | 4.0 | 2.6 | 3.3 |
| White | | | | | | |
| 15-44 years[2] | 35.2 | 85.5 | 47.9 | 55.8 | 14.4 | 7.9 |
| 15-17 years | 21.6 | 24.2 | 19.4 | 168.8 | 5.1 | ... |
| 18-24 years | 52.3 | 256.9 | 116.8 | 85.3 | 13.2 | 6.9 |
| 25-29 years | 45.4 | 256.5 | 122.6 | 61.8 | 28.1 | 7.3 |
| 30-34 years | 31.5 | 102.1 | 62.7 | 39.5 | 19.4 | 12.4 |
| 35-39 years | 16.2 | 59.9 | 32.2 | 17.6 | 10.0 | 10.1 |
| 40-44 years[3] | 3.6 | 17.0 | 5.8 | 3.3 | 2.0 | 3.0 |
| Black | | | | | | |
| 15-44 years[2] | 86.5 | 76.1 | 101.0 | 111.9 | 54.7 | 31.6 |
| 15-17 years | 78.0 | 46.5 | 79.9 | 671.7 | 15.3 | ... |
| 18-24 years | 145.4 | 228.0 | 168.3 | 200.2 | 66.6 | 76.7 |
| 25-29 years | 98.2 | 78.8 | 97.5 | 123.1 | 85.0 | 46.2 |
| 30-34 years | 57.7 | 32.3 | 88.2 | 64.8 | 49.2 | 32.2 |
| 35-39 years | 25.8 | 47.3 | 24.4 | 28.2 | 27.0 | 16.8 |
| 40-44 years[3] | 5.4 | 9.2 | 6.3 | 5.8 | 4.4 | 5.0 |
| Hispanic[4] | | | | | | |
| 15-44 years[2] | 95.3 | 169.1 | 100.7 | 111.0 | 33.2 | 29.0 |
| 15-17 years | 51.0 | 66.0 | 44.2 | 419.5 | 12.2 | ... |
| 18-24 years | 130.9 | 306.4 | 196.9 | 140.3 | 28.6 | 28.5 |
| 25-29 years | 138.3 | 302.3 | 185.6 | 131.4 | 59.3 | 34.4 |
| 30-34 years | 91.8 | 153.9 | 99.7 | 105.6 | 40.0 | 38.7 |
| 35-39 years | 48.1 | 87.4 | 61.4 | 37.6 | 25.0 | 20.0 |
| 40-44 years[3] | 14.5 | 33.8 | 12.5 | 10.0 | 6.1 | 8.9 |

[1] Includes race other than white and black.

[2] Rates computed by relating total births, regardless of age of mother, to unmarried women aged 15-44 years in specified group.

[3] Rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years in specified group.

[4] Persons of Hispanic origin may be of any race. For method of estimation, see reference below.

Source: Ventura SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995.

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## Table II-4. Birth rates for unmarried women by age and race of mother: United States and each State, 1990

[Rates per 1,000 unmarried women residing in area for specified group]

| *State[1] and race of mother* | *Age of mother* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | *15-44 years[2]* | *15-19 years* | | | *20-24 years* | *25-29 years* | *30-34 years* | *35-39 years* | *40-44 years[3]* |
| | | *Total* | *15-17 years* | *18-19 years* | | | | | |
| United States | 43.8 | 42.5 | 29.6 | 60.7 | 65.1 | 56.0 | 37.6 | 17.3 | 3.6 |
| White | 32.9 | 30.6 | 20.4 | 44.9 | 48.2 | 43.0 | 29.9 | 14.5 | 3.2 |
| Black | 90.5 | 106.0 | 78.8 | 143.7 | 144.8 | 105.3 | 61.5 | 25.5 | 5.1 |
| Alabama | 45.6 | 48.1 | 35.9 | 65.8 | 73.0 | 54.4 | 28.3 | 12.7 | 2.3 |
| White | 19.6 | 21.0 | 15.7 | 28.6 | 29.2 | 24.4 | 12.9 | 5.6 | * |
| Black | 86.3 | 101.0 | 75.9 | 136.0 | 145.5 | 92.1 | 46.4 | 21.3 | 4.6 |
| Alaska | 56.7 | 45.5 | 25.0 | 84.2 | 104.1 | 83.0 | 49.6 | 24.0 | 4.7 |
| White | 35.2 | 32.2 | 17.0 | 61.3 | 66.2 | 47.8 | 30.5 | 15.8 | * |
| Black | 66.7 | 57.3 | * | 81.3 | 101.0 | 84.8 | 71.4 | * | * |
| Arizona | 57.5 | 57.8 | 41.2 | 81.5 | 88.6 | 74.2 | 45.4 | 20.6 | 4.4 |
| White | 50.4 | 52.8 | 38.1 | 73.6 | 78.3 | 63.7 | 38.5 | 17.4 | 3.5 |
| Black | 96.2 | 110.0 | 85.6 | 146.1 | 152.8 | 119.7 | 58.5 | 22.5 | * |
| Arkansas | 50.2 | 52.5 | 37.8 | 76.0 | 85.8 | 59.2 | 29.6 | 11.4 | 2.8 |
| White | 30.7 | 30.5 | 20.7 | 46.8 | 52.8 | 39.7 | 20.2 | 7.0 | 1.8 |
| Black | 103.3 | 126.7 | 97.9 | 170.2 | 172.5 | 99.7 | 48.8 | 21.8 | 6.3 |
| California | 56.4 | 49.7 | 34.4 | 71.4 | 81.3 | 74.7 | 57.2 | 29.5 | 7.2 |
| White | 57.8 | 50.6 | 34.9 | 72.8 | 84.6 | 76.9 | 57.9 | 30.5 | 7.5 |
| Black | 83.2 | 92.0 | 64.4 | 130.8 | 129.5 | 104.3 | 71.1 | 29.1 | 5.7 |
| Colorado | 31.1 | 37.7 | 27.0 | 53.0 | 50.0 | 36.4 | 19.6 | 9.3 | 2.2 |
| White | 28.2 | 34.7 | 24.8 | 48.8 | 44.9 | 32.6 | 18.0 | 8.7 | 2.0 |
| Black | 77.7 | 96.8 | 70.4 | 135.1 | 140.0 | 85.5 | 42.8 | 18.1 | * |
| Connecticut | 35.0 | 32.1 | 24.0 | 42.4 | 46.4 | 44.2 | 37.5 | 19.2 | 4.0 |
| White | 26.8 | 23.3 | 17.2 | 31.0 | 34.8 | 33.7 | 31.0 | 18.0 | 3.9 |
| Black | 85.2 | 100.2 | 77.6 | 128.2 | 128.2 | 98.3 | 66.2 | 23.4 | * |
| Delaware | 41.5 | 44.2 | 34.5 | 55.2 | 59.5 | 49.7 | 29.4 | 15.0 | * |
| White | 24.5 | 24.9 | 18.9 | 31.3 | 33.6 | 29.7 | 19.6 | 12.7 | * |
| Black | 92.5 | 117.1 | 90.7 | 148.3 | 152.5 | 99.3 | 50.0 | 20.7 | * |
| District of Columbia | 64.4 | 89.7 | 87.0 | 91.8 | 86.8 | 75.2 | 55.7 | 20.6 | 5.1 |
| White | 8.7 | 9.5 | 17.8 | 6.5 | 9.1 | 9.1 | 10.4 | 8.2 | * |
| Black | 90.6 | 119.4 | 99.2 | 140.9 | 138.8 | 112.1 | 74.4 | 24.2 | 5.8 |
| Florida | 48.8 | 52.1 | 37.6 | 72.9 | 74.7 | 58.7 | 40.5 | 18.8 | 5.0 |
| White | 31.6 | 31.1 | 20.8 | 45.7 | 48.1 | 40.9 | 28.6 | 13.9 | 3.9 |
| Black | 111.7 | 131.8 | 100.5 | 177.0 | 175.5 | 120.7 | 78.8 | 35.8 | 9.6 |
| Georgia | 50.2 | 55.7 | 40.2 | 78.2 | 82.8 | 55.9 | 32.9 | 12.6 | 2.2 |
| White | 24.2 | 26.4 | 17.9 | 39.1 | 39.0 | 27.7 | 16.9 | 6.4 | 1.2 |
| Black | 89.6 | 112.8 | 84.7 | 152.0 | 151.9 | 91.9 | 51.6 | 19.9 | 3.7 |
| Hawaii | 42.5 | 46.5 | 29.2 | 73.4 | 67.8 | 48.7 | 30.9 | 16.0 | 3.5 |
| White | 23.3 | 20.6 | 11.2 | 35.3 | 35.3 | 29.1 | 27.9 | 15.5 | * |
| Black | 52.9 | 38.3 | * | * | 103.0 | 47.2 | * | * | * |
| Idaho | 31.4 | 26.2 | 17.1 | 40.8 | 56.7 | 46.6 | 25.6 | 13.2 | 3.5 |
| White | 30.8 | 25.5 | 16.8 | 39.4 | 56.3 | 46.0 | 25.2 | 12.1 | 3.6 |
| Black | * | * | * | * | * | * | * | * | * |
| Illinois | 47.6 | 52.8 | 36.8 | 75.3 | 69.8 | 54.6 | 36.1 | 15.3 | 3.4 |
| White | 29.1 | 31.0 | 19.9 | 46.5 | 42.4 | 33.8 | 22.6 | 9.9 | 2.6 |
| Black | 109.8 | 143.8 | 106.5 | 196.4 | 181.8 | 116.7 | 68.2 | 28.5 | 5.8 |
| Indiana | 38.5 | 41.7 | 29.5 | 58.2 | 60.9 | 45.2 | 23.4 | 9.3 | 1.8 |
| White | 30.6 | 33.0 | 22.8 | 46.8 | 47.9 | 36.3 | 18.6 | 7.2 | 1.6 |
| Black | 91.9 | 120.2 | 89.5 | 164.2 | 166.1 | 92.9 | 45.5 | 19.4 | 3.5 |
| Iowa | 31.3 | 29.7 | 17.8 | 45.5 | 48.3 | 42.0 | 23.1 | 8.2 | 1.6 |
| White | 29.1 | 27.5 | 16.2 | 42.6 | 45.7 | 38.9 | 21.3 | 7.6 | 1.5 |
| Black | 96.5 | 115.8 | 85.9 | 151.5 | 136.3 | 114.4 | 61.4 | * | * |
| Kansas | 36.3 | 37.9 | 24.7 | 57.0 | 58.7 | 42.1 | 23.5 | 8.4 | 2.0 |
| White | 29.9 | 31.3 | 19.8 | 48.0 | 48.3 | 34.6 | 19.7 | 7.3 | 1.6 |
| Black | 98.6 | 126.1 | 90.0 | 177.4 | 171.5 | 100.2 | 49.2 | 18.3 | * |
| Kentucky | 35.8 | 38.3 | 25.9 | 57.1 | 61.3 | 40.9 | 20.8 | 8.5 | 1.9 |
| White | 29.8 | 31.2 | 20.6 | 47.6 | 50.3 | 34.9 | 17.5 | 7.6 | 1.8 |
| Black | 80.3 | 110.6 | 83.3 | 147.6 | 148.3 | 74.6 | 36.8 | 13.6 | * |

## Table II-4. Birth rates for unmarried women by age and race of mother: United States and each State, 1990....continued

[Rates per 1,000 unmarried women residing in area for specified group]

| State[1] and race of mother | Age of mother | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 15-44 years[2] | 15-19 years | | | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years[3] |
| | | Total | 15-17 years | 18-19 years | | | | | |
| Louisiana | 56.7 | 57.5 | 42.9 | 78.9 | 90.6 | 68.2 | 39.7 | 17.8 | 3.2 |
| White | 25.3 | 26.0 | 18.2 | 37.6 | 38.0 | 31.1 | 19.0 | 9.1 | 1.6 |
| Black | 95.8 | 108.0 | 83.6 | 141.9 | 157.1 | 104.7 | 59.6 | 26.5 | 5.2 |
| Maine | 31.5 | 32.8 | 20.3 | 50.2 | 51.7 | 39.9 | 21.1 | 8.4 | * |
| White | 31.1 | 32.6 | 20.2 | 49.8 | 51.4 | 39.1 | 20.8 | 8.1 | * |
| Black | 62.3 | * | * | * | * | * | * | * | * |
| Maryland | 41.8 | 43.6 | 29.5 | 62.3 | 62.5 | 50.6 | 34.6 | 13.6 | 2.3 |
| White | 24.9 | 24.4 | 14.8 | 37.5 | 35.9 | 30.8 | 22.5 | 9.7 | 1.8 |
| Black | 71.0 | 89.0 | 65.2 | 119.2 | 116.3 | 79.4 | 49.4 | 18.1 | 2.9 |
| Massachusetts | 29.3 | 30.0 | 22.2 | 38.2 | 38.5 | 35.5 | 27.2 | 12.9 | 3.3 |
| White | 23.7 | 25.5 | 18.8 | 32.8 | 31.5 | 27.6 | 20.5 | 9.7 | 2.5 |
| Black | 92.5 | 86.9 | 64.6 | 112.9 | 127.8 | 120.3 | 88.4 | 40.0 | 10.9 |
| Michigan | 37.1 | 40.7 | 28.7 | 57.1 | 54.8 | 44.4 | 27.3 | 11.5 | 1.9 |
| White | 21.2 | 22.9 | 15.0 | 33.5 | 31.3 | 24.6 | 15.5 | 6.5 | 1.2 |
| Black | 92.2 | 120.3 | 89.0 | 164.1 | 152.2 | 103.4 | 57.3 | 24.2 | 3.9 |
| Minnesota | 30.3 | 29.8 | 18.2 | 45.4 | 44.9 | 37.5 | 24.0 | 10.4 | 2.6 |
| White | 25.1 | 24.5 | 14.0 | 38.4 | 37.2 | 31.2 | 20.4 | 8.7 | 2.1 |
| Black | 114.5 | 151.3 | 113.4 | 199.2 | 179.9 | 114.0 | 60.2 | 28.7 | * |
| Mississippi | 62.0 | 62.6 | 48.2 | 82.8 | 101.2 | 71.5 | 37.7 | 15.8 | 3.1 |
| White | 22.3 | 21.4 | 15.9 | 29.1 | 36.2 | 29.2 | 15.1 | 5.4 | * |
| Black | 97.8 | 109.4 | 85.3 | 142.9 | 158.9 | 99.6 | 52.7 | 23.7 | 5.0 |
| Missouri | 43.6 | 46.7 | 33.0 | 66.0 | 68.3 | 52.4 | 29.8 | 12.8 | 2.3 |
| White | 29.1 | 31.1 | 20.4 | 46.1 | 44.4 | 35.5 | 20.1 | 8.6 | 1.6 |
| Black | 109.4 | 142.2 | 110.9 | 185.5 | 187.9 | 114.3 | 61.5 | 26.8 | 5.4 |
| Montana | 37.9 | 34.8 | 20.0 | 59.6 | 65.0 | 57.1 | 30.1 | 11.0 | * |
| White | 27.4 | 26.0 | 15.3 | 43.8 | 47.9 | 38.6 | 22.2 | 7.8 | * |
| Black | * | * | * | * | * | * | * | * | * |
| Nebraska | 33.2 | 31.7 | 20.2 | 47.8 | 52.9 | 41.5 | 23.4 | 9.3 | 2.2 |
| White | 27.3 | 25.8 | 15.6 | 40.0 | 43.4 | 35.2 | 18.9 | 8.1 | 2.1 |
| Black | 99.8 | 132.7 | 99.4 | 180.5 | 176.4 | 90.0 | 55.9 | * | * |
| Nevada | 43.7 | 45.2 | 30.6 | 67.7 | 72.1 | 57.5 | 37.8 | 14.1 | 2.7 |
| White | 37.6 | 37.5 | 24.6 | 57.3 | 62.5 | 50.7 | 34.0 | 13.4 | 2.5 |
| Black | 99.0 | 121.7 | 88.4 | 174.1 | 157.6 | 108.8 | 67.7 | 19.7 | * |
| New Hampshire | 25.5 | 24.4 | 15.0 | 35.8 | 36.4 | 35.0 | 22.1 | 9.3 | * |
| White | 25.5 | 24.5 | 15.0 | 36.1 | 36.7 | 34.9 | 22.3 | 9.1 | * |
| Black | 40.9 | * | * | * | * | * | * | * | * |
| New Jersey | 33.9 | 33.6 | 21.8 | 50.2 | 47.0 | 42.6 | 30.5 | 13.6 | 3.4 |
| White | 22.2 | 20.3 | 12.3 | 31.6 | 29.6 | 28.4 | 22.6 | 11.5 | 3.1 |
| Black | 79.4 | 95.5 | 67.5 | 132.5 | 124.0 | 92.4 | 54.0 | 20.0 | 4.2 |
| New Mexico | 59.6 | 58.5 | 39.2 | 90.2 | 101.8 | 76.4 | 42.8 | 21.9 | 5.2 |
| White | 50.2 | 53.1 | 36.3 | 80.5 | 86.3 | 62.2 | 32.5 | 17.1 | 3.6 |
| Black | 74.3 | 92.1 | 70.3 | 124.5 | 122.3 | 83.0 | * | * | * |
| New York | 44.5 | 36.2 | 25.1 | 50.3 | 57.7 | 61.8 | 51.5 | 26.6 | 6.1 |
| White | 33.8 | 27.6 | 18.3 | 39.2 | 44.1 | 46.3 | 39.0 | 20.8 | 4.9 |
| Black | 81.5 | 73.1 | 52.9 | 100.6 | 114.1 | 109.0 | 84.5 | 41.9 | 9.4 |
| North Carolina | 44.5 | 48.8 | 36.6 | 65.1 | 69.4 | 51.0 | 27.1 | 10.2 | 1.7 |
| White | 22.8 | 25.6 | 19.7 | 33.5 | 33.4 | 25.5 | 15.1 | 5.9 | 1.2 |
| Black | 85.3 | 102.7 | 76.3 | 137.4 | 141.3 | 91.0 | 44.2 | 16.6 | 2.6 |
| North Dakota | 29.3 | 25.4 | 13.4 | 42.8 | 42.8 | 38.6 | 27.8 | 10.3 | * |
| White | 21.9 | 19.3 | 9.7 | 33.0 | 32.4 | 28.6 | 19.8 | 6.3 | * |
| Black | * | * | * | * | * | * | * | * | * |
| Ohio | 40.8 | 44.9 | 29.5 | 66.2 | 63.9 | 48.1 | 26.8 | 10.6 | 1.7 |
| White | 29.5 | 32.7 | 20.3 | 49.9 | 45.8 | 34.5 | 18.2 | 7.4 | 1.4 |
| Black | 95.9 | 127.3 | 92.1 | 174.5 | 170.9 | 101.6 | 55.6 | 22.1 | 3.0 |
| Oklahoma | 41.2 | 41.0 | 27.9 | 61.5 | 71.9 | 52.3 | 29.2 | 9.2 | 2.2 |
| White | 31.2 | 31.6 | 21.2 | 47.8 | 53.3 | 41.8 | 21.4 | 7.2 | 1.9 |
| Black | 91.8 | 109 | 78.9 | 149.6 | 164.1 | 88.6 | 56.5 | 15.7 | * |

## Table II-4. Birth rates for unmarried women by age and race of mother: United States and each State, 1990....continued

[Rates per 1,000 unmarried women residing in area for specified group]

| State[1] and race of mother | Age of mother |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  |  | 15-19 years |  |  |  |  |  |  |  |
|  | 15-44 years[2] | Total | 15-17 years | 18-19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years[3] |
| Oregon | 38.5 | 38.9 | 25.5 | 59.2 | 63.3 | 54.5 | 31.3 | 11.8 | 2.3 |
| White | 36.9 | 37.4 | 24.0 | 58.0 | 61.4 | 53.0 | 30.1 | 11.3 | 2.2 |
| Black | 89.1 | 105.8 | 80.2 | 146.8 | 165.7 | 91.4 | 58.0 | * | * |
| Pennsylvania | 36.6 | 37.2 | 25.9 | 51.4 | 54.7 | 52.2 | 32.9 | 13.2 | 2.7 |
| White | 27.2 | 26.4 | 17.3 | 37.9 | 39.0 | 35.5 | 22.7 | 9.7 | 2.2 |
| Black | 103.3 | 124.3 | 95.0 | 161.6 | 164.1 | 127.4 | 71.9 | 27.3 | 4.7 |
| Rhode Island | 33.3 | 36.3 | 28.8 | 43.8 | 45.0 | 42.7 | 24.0 | 11.4 | 2.0 |
| White | 27.6 | 30.8 | 24.0 | 37.5 | 36.9 | 35.2 | 19.0 | 9.7 | * |
| Black | 104.0 | 117.2 | 94.5 | 143.5 | 161.8 | 112.8 | 72.1 | 32.0 | * |
| South Carolina | 50.6 | 53.6 | 39.1 | 73.2 | 79.0 | 58.3 | 33.0 | 13.7 | 2.2 |
| White | 24.3 | 26.8 | 19.5 | 36.6 | 35.1 | 28.7 | 15.9 | 7.1 | 1.1 |
| Black | 86.5 | 96.7 | 70.4 | 133.2 | 142.6 | 91.5 | 51.2 | 21.1 | 3.6 |
| South Dakota | 39.8 | 33.7 | 20.3 | 53.8 | 61.7 | 56.1 | 36.4 | 14.7 | * |
| White | 24.1 | 21.8 | 12.8 | 34.8 | 38.0 | 31.6 | 19.8 | 7.6 | * |
| Black | * | * | * | * | * | * | * | * | * |
| Tennessee | 44.8 | 47.6 | 33.4 | 68.4 | 75.6 | 52.2 | 30.0 | 12.0 | 2.4 |
| White | 27.3 | 28.6 | 18.0 | 43.1 | 46.6 | 32.6 | 17.4 | 7.0 | 1.6 |
| Black | 94.0 | 118.3 | 90.1 | 155.9 | 157.8 | 95.8 | 56.4 | 23.0 | 4.8 |
| Texas | 31.4 | 32.6 | 23.9 | 46.0 | 50.3 | 36.7 | 21.3 | 9.6 | 2.1 |
| White | 24.1 | 23.7 | 17.1 | 33.8 | 38.1 | 29.7 | 18.0 | 8.4 | 2.0 |
| Black | 67.0 | 87.7 | 66.7 | 117.8 | 113.0 | 65.7 | 33.6 | 14.0 | 2.4 |
| Utah | 29.7 | 25.1 | 17.1 | 37.6 | 46.3 | 43.1 | 27.4 | 10.0 | 3.0 |
| White | 27.7 | 24.2 | 16.5 | 36.1 | 43.1 | 39.0 | 25.1 | 8.9 | 2.6 |
| Black | 83.7 | 99.5 | 92.8 | 108.1 | 117.0 | 111.6 | * | * | * |
| Vermont | 26.4 | 24.6 | 16.2 | 34.0 | 40.6 | 36.3 | 19.6 | 10.6 | * |
| White | 26.6 | 24.6 | 16.3 | 34.1 | 40.8 | 36.6 | 19.9 | 10.7 | * |
| Black | * | * | * | * | * | * | * | * | * |
| Virginia | 36.3 | 37.9 | 26.2 | 53.2 | 57.4 | 47.9 | 30.0 | 12.6 | 2.5 |
| White | 22.9 | 21.9 | 13.8 | 32.8 | 33.6 | 29.0 | 19.7 | 9.0 | 1.8 |
| Black | 81.9 | 93.6 | 70.7 | 121.6 | 131.9 | 94.4 | 51.4 | 20.5 | 3.7 |
| Washington | 36.6 | 37.9 | 24.9 | 56.6 | 58.8 | 47.3 | 29.1 | 12.0 | 2.4 |
| White | 34.1 | 35.9 | 23.2 | 54.5 | 55.2 | 44.5 | 27.0 | 10.6 | 2.2 |
| Black | 72.0 | 85.3 | 61.5 | 118.9 | 125.9 | 79.1 | 43.5 | 21.8 | * |
| West Virginia | 34.2 | 33.3 | 22.6 | 49.5 | 58.3 | 45.4 | 22.6 | 8.7 | 2.2 |
| White | 32.6 | 32.1 | 21.9 | 47.6 | 55.5 | 42.9 | 21.5 | 7.8 | 2.1 |
| Black | 67.0 | 70.9 | 46.6 | 101.1 | 121.4 | 80.2 | 36.4 | 20.1 | * |
| Wisconsin | 33.9 | 34.9 | 21.9 | 52.2 | 49.1 | 41.3 | 24.6 | 10.7 | 2.1 |
| White | 24.2 | 23.6 | 13.1 | 37.5 | 35.2 | 30.7 | 19.0 | 8.4 | 1.7 |
| Black | 122.7 | 174.5 | 124.8 | 246.5 | 209.2 | 117.0 | 56.5 | 24.8 | * |
| Wyoming | 34.1 | 33.9 | 21.7 | 55.5 | 61.9 | 44.5 | 23.3 | 6.6 | * |
| White | 31.6 | 32.4 | 20.6 | 53.2 | 57.2 | 40.5 | 20.1 | 5.9 | * |
| Black | 63.0 | * | * | * | * | * | * | * | * |

[1] Totals for areas include races other than white and black.

[2] Rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.

[3] Rates computed by relating total births to unmarried mothers aged 40 years and over to unmarried women 40-44 years.

* Figure does not meet standards of reliability or precision; based on fewer than 20 births.

Source: Clarke SC, Ventura SJ. Birth and Fertility Rates for States: United States, 1990. National Center for Health Statistics. Vital and Health Statistics 21(52). 1994.

**Table II-5. Ratios of births to unmarried women by race: United States and each State, 1970, 1980 and 1985-93**

*[Ratios per 1,000 total live births in specified group]*

| *State and race*1 | *1993* | *1992* | *1991* | *1990* | *1989* | *1988* | *1987* | *1986* | *1985* | *1980* | *1970*2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **United States** | 310.0 | 301.3 | 295.3 | 280.3 | 270.8 | 257.1 | 244.9 | 233.9 | 220.2 | 184.3 | 106.9 |
| White | 235.6 | 225.5 | 218.3 | 203.5 | 192.2 | 179.7 | 168.9 | 159.2 | 146.7 | 112.0 | 56.6 |
| Black | 686.7 | 681.3 | 679.4 | 665.3 | 657.2 | 647.0 | 634.0 | 623.7 | 612.2 | 561.2 | 375.8 |
| | | | | | | | | | | | |
| **Alabama** | 335.1 | 325.6 | 318.6 | 301.3 | 297.9 | 278.8 | 267.8 | 258.7 | 249.4 | 221.7 | 139.2 |
| White | 148.9 | 137.3 | 127.8 | 119.7 | 115.4 | 105.1 | 93.8 | 85.8 | 80.5 | 59.2 | 31.5 |
| Black | 693.2 | 682.1 | 681.5 | 647.4 | 642.0 | 612.5 | 607.2 | 593.7 | 582.0 | 521.0 | 360.7 |
| **Alaska** | 280.1 | 274.2 | 269.4 | 261.6 | 245.9 | 233.9 | 219.6 | 208.0 | 182.5 | 156.2 | 93.0 |
| White | 201.4 | 189.7 | 180.0 | 171.9 | 158.1 | 145.4 | 139.6 | 132.9 | 116.4 | 95.2 | 44.3 |
| Black | 329.9 | 352.4 | 343.6 | 300.9 | 296.4 | 272.0 | 268.0 | 296.7 | 242.9 | 201.1 | 141.8 |
| **Arizona** | 378.7 | 362.3 | 350.9 | 326.6 | 308.2 | 286.7 | 271.9 | 256.2 | 238.8 | 187.1 | 91.4 |
| White | 344.4 | 327.1 | 313.1 | 288.9 | 267.4 | 245.0 | 229.3 | 214.0 | 198.0 | 146.0 | 66.3 |
| Black | 659.6 | 652.8 | 641.0 | 612.0 | 612.5 | 579.6 | 571.2 | 550.0 | 550.5 | 489.3 | 339.8 |
| **Arkansas** | 317.2 | 309.6 | 298.8 | 293.9 | 276.9 | 264.7 | 245.9 | 239.8 | 224.2 | 204.8 | 127.6 |
| White | 197.5 | 185.9 | 174.6 | 171.3 | 152.6 | 144.7 | 129.3 | 121.2 | 106.8 | 85.3 | 40.9 |
| Black | 719.2 | 714.2 | 704.8 | 695.7 | 682.1 | 660.0 | 641.0 | 633.0 | 615.6 | 571.9 | 385.3 |
| **California** | 352.6 | 343.0 | 334.8 | 315.9 | 300.3 | 286.2 | 271.7 | 264.8 | 245.6 | 213.8 | -- |
| White | 352.3 | 340.4 | 329.6 | 307.4 | 287.3 | 272.5 | 254.2 | 247.1 | 226.7 | 186.5 | -- |
| Black | 627.1 | 628.4 | 635.4 | 623.3 | 621.2 | 613.5 | 606.3 | 600.5 | 580.9 | 541.0 | -- |
| **Colorado** | 247.5 | 237.8 | 235.7 | 212.5 | 204.6 | 195.5 | 189.0 | 180.0 | 166.1 | 130.1 | 90.8 |
| White | 227.0 | 217.6 | 215.5 | 192.1 | 186.1 | 177.8 | 171.4 | 163.0 | 150.9 | 116.5 | 81.9 |
| Black | 583.9 | 560.5 | 568.8 | 545.9 | 532.0 | 520.7 | 521.6 | 509.4 | 500.4 | 441.3 | 292.5 |
| **Connecticut** | 298.1 | 287.1 | 279.6 | 265.9 | 262.9 | 238.4 | 235.3 | 189.6 | 212.7 | 179.4 | -- |
| White | 235.2 | 221.8 | 214.0 | 202.7 | 201.6 | 177.5 | 189.7 | 139.7 | 154.1 | 121.4 | -- |
| Black | 708.1 | 707.4 | 701.3 | 691.5 | 661.4 | 670.3 | 570.3 | 575.1 | 672.4 | 643.2 | -- |
| **Delaware** | 338.5 | 325.6 | 318.1 | 289.9 | 291.2 | 270.9 | 277.3 | 269.7 | 262.2 | 241.8 | 155.7 |
| White | 222.3 | 201.6 | 182.7 | 166.5 | 161.7 | 154.2 | 149.5 | 141.6 | 141.5 | 115.4 | 63.4 |
| Black | 741.6 | 725.8 | 719.9 | 702.7 | 714.3 | 673.7 | 704.1 | 687.3 | 689.9 | 670.7 | 498.6 |
| **Dist of Columbia** | 678.4 | 669.2 | 662.9 | 649.1 | 643.0 | 617.4 | 597.0 | 577.4 | 567.2 | 564.5 | 387.3 |
| White | 162.4 | 151.8 | 123.4 | 193.2 | 129.8 | 135.3 | 145.5 | 147.5 | 171.4 | 174.4 | 212.8 |
| Black | 787.8 | 775.6 | 773.4 | 759.6 | 759.3 | 737.1 | 716.6 | 685.9 | 673.8 | 645.2 | 417.1 |
| **Florida** | 350.2 | 341.6 | 330.4 | 316.9 | 301.9 | 287.1 | 275.2 | 267.4 | 257.6 | 230.1 | 145.4 |
| White | 249.7 | 236.9 | 221.5 | 208.9 | 191.4 | 175.3 | 161.5 | 153.0 | 140.9 | 106.2 | 63.3 |
| Black | 690.7 | 688.5 | 687.0 | 676.2 | 665.7 | 651.6 | 648.7 | 645.2 | 638.5 | 599.2 | 409.2 |
| **Georgia** | 357.7 | 350.3 | 345.6 | 328.2 | 316.7 | 296.0 | 279.5 | 272.0 | 257.0 | 231.5 | -- |
| White | 178.6 | 168.7 | 162.1 | 149.3 | 140.0 | 121.8 | 113.5 | 105.5 | 93.6 | 66.0 | -- |
| Black | 678.0 | 671.2 | 668.0 | 649.1 | 636.7 | 619.1 | 602.7 | 594.0 | 574.6 | 522.3 | -- |
| **Hawaii** | 271.9 | 262.0 | 260.8 | 248.3 | 238.0 | 221.7 | 213.3 | 203.2 | 199.0 | 175.5 | 97.4 |
| White | 160.7 | 154.8 | 158.9 | 144.9 | 144.8 | 146.3 | 140.9 | 133.8 | 131.2 | 132.8 | 94.7 |
| Black | 176.3 | 194.2 | 179.9 | 176.6 | 151.2 | 152.2 | 145.8 | 121.8 | 123.9 | 110.3 | * |
| **Idaho** | 187.4 | 183.1 | 173.8 | 166.6 | 161.2 | 140.8 | 130.1 | 118.5 | 107.8 | 78.7 | -- |
| White | 182.4 | 179.2 | 169.5 | 162.0 | 155.6 | 136.9 | 126.1 | 114.9 | 103.1 | 75.3 | -- |
| Black | 434.8 | 362.1 | * | * | * | * | * | * | * | * | -- |
| **Illinois** | 341.4 | 334.3 | 325.5 | 317.4 | 309.3 | 294.5 | 280.5 | 270.7 | 257.3 | 225.3 | 134.3 |
| White | 216.9 | 206.8 | 199.1 | 190.2 | 180.1 | 168.4 | 156.9 | 149.3 | 136.5 | 108.5 | 57.9 |
| Black | 788.4 | 792.0 | 781.8 | 778.2 | 756.3 | 758.0 | 740.2 | 730.3 | 725.4 | 665.9 | 446.5 |
| **Indiana** | 307.9 | 294.6 | 283.5 | 261.7 | 238.4 | 227.1 | 219.7 | 210.0 | 197.9 | 155.0 | 81.5 |
| White | 252.2 | 236.2 | 225.1 | 203.4 | 181.5 | 168.8 | 164.9 | 155.4 | 144.1 | 103.7 | 54.0 |
| Black | 763.2 | 767.8 | 759.6 | 737.5 | 713.0 | 707.8 | 712.0 | 699.9 | 684.1 | 595.7 | 351.5 |
| **Iowa** | 245.8 | 235.5 | 222.0 | 210.2 | 194.1 | 176.7 | 162.2 | 150.2 | 135.6 | 102.5 | 70.5 |
| White | 229.2 | 218.5 | 205.5 | 194.7 | 177.1 | 160.8 | 146.8 | 136.7 | 122.8 | 92.0 | 62.8 |
| Black | 775.6 | 750.8 | 743.5 | 730.9 | 767.3 | 750.3 | 718.4 | 701.4 | 676.4 | 595.7 | 437.0 |
| **Kansas** | 259.2 | 242.6 | 231.1 | 215.2 | 195.6 | 181.1 | 172.2 | 167.3 | 147.3 | 122.5 | 65.9 |
| White | 218.2 | 201.6 | 191.6 | 175.4 | 157.2 | 142.2 | 135.0 | 131.9 | 114.2 | 88.3 | 49.9 |
| Black | 670.8 | 657.8 | 647.7 | 628.1 | 606.5 | 601.3 | 584.0 | 574.0 | 551.3 | 530.7 | 280.3 |
| **Kentucky** | 271.7 | 263.4 | 253.9 | 236.0 | 225.5 | 219.5 | 207.4 | 199.9 | 185.3 | 150.5 | 84.6 |
| White | 227.0 | 216.8 | 205.8 | 190.0 | 178.6 | 172.1 | 164.4 | 155.6 | 142.9 | 106.9 | 53.2 |
| Black | 723.8 | 705.3 | 706.5 | 685.8 | 674.0 | 673.6 | 669.6 | 648.2 | 641.5 | 594.7 | 411.1 |

## Table II-5. Ratios of births to unmarried women by race: United States and each State, 1970, 1980 and 1985-93..cont.

[Ratios per 1,000 total live births in specified group]

| State and race[1] | 1993 | 1992 | 1991 | 1990 | 1989 | 1988 | 1987 | 1986 | 1985 | 1980 | 1970[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Louisiana | 420.4 | 402.4 | 383.6 | 368.5 | 353.1 | 334.9 | 319.0 | 302.3 | 285.6 | 233.6 | 147.6 |
| White | 199.8 | 184.9 | 167.5 | 155.8 | 142.7 | 129.4 | 119.8 | 109.7 | 99.2 | 70.8 | 38.3 |
| Black | 714.5 | 700.3 | 681.1 | 672.0 | 655.3 | 638.6 | 617.5 | 600.1 | 584.0 | 504.8 | 330.6 |
| Maine | 269.6 | 253.0 | 249.5 | 226.5 | 217.9 | 203.2 | 198.1 | 189.8 | 178.2 | 138.6 | 70.6 |
| White | 267.4 | 252.5 | 248.5 | 224.2 | 216.1 | 202.5 | 196.7 | 188.6 | 176.9 | 137.0 | 69.5 |
| Black | 368.4 | 365.9 | 259.3 | 385.4 | 320.5 | * | * | * | * | * | * |
| Maryland | 324.5 | 304.8 | 306.8 | 296.5 | 288.9 | 326.2 | 315.2 | 304.8 | 290.7 | 251.5 | -- |
| White | 179.8 | 163.0 | 170.9 | 162.1 | 153.6 | 182.4 | 173.5 | 163.7 | 153.1 | 114.7 | -- |
| Black | 619.4 | 601.9 | 607.6 | 601.5 | 600.9 | 655.7 | 643.9 | 644.0 | 626.2 | 586.4 | -- |
| Massachusetts | 264.3 | 259.3 | 259.3 | 247.0 | 238.2 | 221.8 | 208.6 | 193.0 | 183.8 | 156.5 | -- |
| White | 224.9 | 217.8 | 219.7 | 207.0 | 199.5 | 186.7 | 175.7 | 165.0 | 155.9 | 130.3 | -- |
| Black | 622.1 | 629.8 | 623.4 | 607.9 | 608.2 | 581.1 | 577.5 | 560.3 | 584.2 | 551.6 | -- |
| Michigan | 259.7 | 268.0 | 272.6 | 262.1 | 245.4 | 216.1 | 204.3 | 193.4 | 180.7 | 161.8 | 109.6 |
| White | 146.1 | 150.1 | 153.7 | 146.2 | 135.2 | 122.9 | 115.8 | 111.8 | 105.6 | 89.3 | 62.6 |
| Black | 706.9 | 720.6 | 718.4 | 703.4 | 679.6 | 639.9 | 614.9 | 592.1 | 577.6 | 539.7 | 364.0 |
| Minnesota | 233.6 | 229.5 | 223.4 | 208.7 | 194.6 | 183.3 | 170.5 | 163.0 | 150.7 | 114.1 | 80.7 |
| White | 200.1 | 193.5 | 186.7 | 175.8 | 162.2 | 152.2 | 142.1 | 137.2 | 126.9 | 98.5 | 70.8 |
| Black | 721.0 | 744.2 | 745.9 | 732.8 | 720.2 | 732.6 | 696.4 | 701.5 | 688.0 | 602.1 | 479.3 |
| Mississippi | 444.1 | 429.0 | 424.0 | 404.6 | 393.9 | 376.1 | 351.1 | 339.8 | 328.5 | 280.4 | 173.5 |
| White | 165.3 | 151.6 | 150.7 | 133.3 | 123.8 | 115.4 | 99.3 | 92.7 | 85.6 | 59.7 | 31.2 |
| Black | 737.2 | 724.6 | 713.1 | 699.1 | 687.9 | 666.3 | 638.5 | 626.3 | 610.8 | 523.9 | 330.9 |
| Missouri | 323.6 | 315.2 | 301.7 | 285.7 | 271.3 | 250.0 | 237.2 | 224.8 | 215.6 | 176.3 | 114.6 |
| White | 226.0 | 215.5 | 203.3 | 187.9 | 177.1 | 160.1 | 151.0 | 138.3 | 129.3 | 96.3 | 56.3 |
| Black | 792.0 | 786.6 | 770.8 | 759.7 | 749.8 | 728.7 | 706.8 | 711.5 | 704.3 | 647.3 | 445.3 |
| Montana | 273.1 | 264.3 | 251.7 | 237.4 | 217.4 | 207.8 | 194.3 | 177.6 | 168.2 | 125.2 | -- |
| White | 221.2 | 208.0 | 199.4 | 179.6 | 161.5 | 149.6 | 139.2 | 130.8 | 124.7 | 93.7 | -- |
| Black | * | * | * | * | * | * | * | * | * | * | -- |
| Nebraska | 234.6 | 226.1 | 215.7 | 207.4 | 192.5 | 181.2 | 168.2 | 155.1 | 148.3 | 116.0 | 75.9 |
| White | 197.5 | 187.8 | 175.8 | 169.6 | 153.6 | 142.1 | 131.6 | 119.7 | 116.5 | 89.6 | 59.2 |
| Black | 732.5 | 727.1 | 746.6 | 710.7 | 701.7 | 720.9 | 706.0 | 700.3 | 660.4 | 615.2 | 420.3 |
| Nevada | 339.9 | 332.9 | 318.5 | 253.7 | 235.0 | 190.6 | 164.4 | 165.9 | 156.5 | 134.5 | 108.8 |
| White | 301.3 | 288.0 | 273.8 | 212.4 | 190.3 | 144.0 | 119.6 | 118.1 | 110.2 | 92.7 | 74.7 |
| Black | 710.1 | 718.9 | 727.5 | 662.3 | 636.4 | 609.3 | 577.9 | 614.6 | 582.5 | 523.1 | 403.1 |
| New Hampshire | 205.9 | 191.9 | 183.3 | 168.9 | 157.1 | 144.1 | 147.4 | 139.2 | 133.6 | 109.6 | 61.8 |
| White | 204.4 | 190.9 | 183.3 | 168.7 | 156.8 | 144.1 | 147.3 | 139.5 | 133.7 | 109.7 | 61.5 |
| Black | 541.3 | 495.4 | 412.5 | 371.7 | 283.3 | 280.0 | 302.8 | * | * | * | * |
| New Jersey | 271.5 | 263.8 | 263.3 | 243.3 | 241.0 | 242.7 | 235.0 | 228.7 | 222.6 | 210.8 | 106.2 |
| White | 180.0 | 174.2 | 172.3 | 155.9 | 149.5 | 150.8 | 142.6 | 140.1 | 132.7 | 113.2 | 44.5 |
| Black | 669.7 | 657.3 | 658.1 | 635.5 | 630.3 | 644.0 | 646.0 | 635.1 | 626.2 | 615.7 | 388.3 |
| New Mexico | 413.8 | 394.8 | 375.7 | 354.1 | 345.4 | 322.5 | 295.5 | 278.5 | 262.9 | 160.8 | -- |
| White | 365.1 | 345.6 | 327.7 | 305.0 | 292.9 | 269.2 | 246.0 | 232.0 | 219.7 | 129.2 | -- |
| Black | 584.7 | 580.9 | 572.2 | 566.1 | 558.9 | 539.4 | 494.2 | 456.3 | 451.3 | 273.9 | -- |
| New York | 372.2 | 348.3 | 340.8 | 329.7 | 319.1 | 300.7 | 297.4 | 293.7 | 280.7 | 238.1 | -- |
| White | 288.6 | 266.4 | 257.3 | 243.1 | 231.2 | 210.7 | 208.0 | 202.3 | 190.3 | 147.7 | -- |
| Black | 705.5 | 678.1 | 677.6 | 674.4 | 657.9 | 645.8 | 638.8 | 639.4 | 630.4 | 601.3 | -- |
| North Carolina | 321.5 | 313.1 | 315.9 | 293.9 | 277.3 | 262.6 | 248.8 | 236.3 | 221.2 | 190.0 | 124.6 |
| White | 169.8 | 161.0 | 160.2 | 141.7 | 128.2 | 119.1 | 108.6 | 98.5 | 89.4 | 64.0 | 37.3 |
| Black | 676.3 | 668.0 | 668.8 | 644.1 | 621.7 | 600.5 | 590.1 | 573.1 | 551.3 | 485.1 | 349.8 |
| North Dakota | 230.0 | 226.4 | 219.6 | 183.7 | 168.8 | 156.2 | 138.7 | 129.2 | 114.9 | 92.4 | 66.8 |
| White | 185.5 | 182.0 | 174.0 | 140.4 | 126.8 | 117.4 | 102.4 | 98.3 | 85.8 | 69.3 | 54.9 |
| Black | 280.9 | * | * | * | * | * | * | * | * | * | * |
| Ohio | 329.9 | 316.3 | 306.6 | 289.3 | 280.1 | 264.4 | 248.6 | 233.6 | 217.6 | 178.1 | -- |
| White | 245.2 | 230.9 | 221.5 | 205.9 | 197.1 | 184.2 | 172.1 | 160.3 | 145.9 | 112.3 | -- |
| Black | 782.2 | 771.4 | 761.8 | 747.3 | 740.4 | 725.6 | 707.0 | 690.1 | 675.4 | 614.2 | -- |
| Oklahoma | 290.7 | 283.6 | 271.4 | 251.8 | 237.6 | 223.6 | 206.6 | 186.1 | 172.2 | 140.4 | 83.3 |
| White | 224.4 | 215.1 | 201.2 | 185.1 | 169.7 | 158.3 | 145.4 | 127.4 | 116.9 | 84.4 | 50.5 |
| Black | 681.0 | 684.0 | 686.7 | 649.2 | 642.0 | 627.7 | 602.1 | 567.6 | 558.6 | 534.6 | 345.9 |

## Table II-5. Ratios of births to unmarried women by race: United States and each State, 1970, 1980 and 1985-93..cont.

[Ratios per 1,000 total live births in specified group]

| State and race[1] | 1993 | 1992 | 1991 | 1990 | 1989 | 1988 | 1987 | 1986 | 1985 | 1980 | 1970[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Oregon | 282.1 | 269.8 | 266.5 | 257.4 | 252.8 | 235.6 | 224.1 | 206.5 | 187.5 | 147.9 | 75.1 |
| White | 271.7 | 257.5 | 253.5 | 245.1 | 240.2 | 222.8 | 211.7 | 195.6 | 175.3 | 138.7 | 67.0 |
| Black | 718.9 | 707.9 | 726.2 | 713.8 | 696.5 | 697.1 | 675.6 | 638.4 | 645.4 | 589.1 | 398.3 |
| Pennsylvania | 322.1 | 315.6 | 304.2 | 286.4 | 279.0 | 265.1 | 253.0 | 244.1 | 227.7 | 176.9 | 97.1 |
| White | 238.6 | 229.3 | 218.0 | 202.4 | 193.5 | 182.8 | 172.0 | 165.2 | 154.1 | 111.2 | 51.8 |
| Black | 797.3 | 794.4 | 787.9 | 774.9 | 772.1 | 758.1 | 753.3 | 746.0 | 725.0 | 672.9 | 413.2 |
| Rhode Island | 317.4 | 296.4 | 276.4 | 263.0 | 249.5 | 229.3 | 218.1 | 197.6 | 195.6 | 156.5 | 69.9 |
| White | 277.9 | 256.9 | 236.8 | 226.3 | 213.4 | 196.8 | 186.7 | 166.8 | 166.1 | 130.7 | 53.1 |
| Black | 684.6 | 672.0 | 662.9 | 629.5 | 647.5 | 614.2 | 618.0 | 635.9 | 608.0 | 598.2 | 392.6 |
| South Carolina | 359.6 | 354.7 | 347.4 | 326.7 | 316.0 | 303.4 | 290.4 | 276.1 | 264.2 | 230.3 | 150.3 |
| White | 174.8 | 167.6 | 158.5 | 146.5 | 136.6 | 123.9 | 115.3 | 105.1 | 94.0 | 68.1 | 36.0 |
| Black | 661.2 | 656.0 | 644.2 | 618.1 | 600.3 | 588.5 | 574.9 | 551.6 | 543.6 | 473.9 | 350.1 |
| South Dakota | 276.9 | 266.2 | 248.5 | 228.7 | 217.8 | 208.5 | 193.6 | 175.3 | 179.3 | 134.1 | 69.0 |
| White | 190.1 | 181.3 | 166.3 | 144.7 | 133.5 | 133.0 | 115.2 | 101.8 | 107.0 | 78.6 | 48.4 |
| Black | 272.7 | 329.1 | * | * | * | * | * | * | * | * | * |
| Tennessee | 336.3 | 326.9 | 322.5 | 302.3 | 290.8 | 275.9 | 263.4 | 253.1 | 242.9 | 198.5 | 124.3 |
| White | 207.6 | 200.6 | 194.1 | 177.3 | 163.2 | 149.1 | 139.3 | 130.7 | 123.2 | 87.5 | 45.9 |
| Black | 743.5 | 732.7 | 731.5 | 710.8 | 700.9 | 688.7 | 678.4 | 674.1 | 658.4 | 586.4 | 416.3 |
| Texas | 169.7 | 174.5 | 177.9 | 175.2 | 196.0 | 197.2 | 190.3 | 176.6 | 163.7 | 133.1 | 87.4 |
| White | 130.0 | 130.7 | 130.9 | 127.7 | 143.1 | 143.5 | 138.5 | 127.1 | 114.8 | 82.9 | 49.9 |
| Black | 444.6 | 465.7 | 484.9 | 483.0 | 532.2 | 543.1 | 530.4 | 511.8 | 501.0 | 450.2 | 301.1 |
| Utah | 154.7 | 151.5 | 144.2 | 135.3 | 126.6 | 117.1 | 111.2 | 98.2 | 87.0 | 62.0 | 36.0 |
| White | 145.9 | 141.7 | 135.2 | 125.8 | 116.6 | 109.6 | 103.7 | 91.8 | 81.3 | 58.2 | 32.2 |
| Black | 449.6 | 518.4 | 511.1 | 527.3 | 481.3 | 539.9 | 472.8 | 443.8 | 442.4 | 412.2 | 229.2 |
| Vermont | 242.1 | 234.1 | 227.4 | 201.4 | 198.4 | 186.2 | 179.5 | 167.0 | 171.5 | 137.0 | -- |
| White | 240.3 | 232.5 | 226.1 | 200.5 | 198.1 | 186.8 | 179.9 | 167.4 | 171.5 | 137.2 | -- |
| Black | * | * | * | * | * | * | * | * | * | * | -- |
| Virginia | 290.0 | 283.3 | 278.6 | 260.4 | 252.2 | 237.6 | 227.6 | 224.1 | 214.3 | 191.9 | 116.2 |
| White | 179.7 | 170.0 | 166.8 | 151.0 | 142.4 | 131.7 | 124.5 | 117.2 | 107.7 | 86.1 | 47.0 |
| Black | 636.5 | 638.8 | 630.0 | 612.8 | 603.8 | 587.1 | 572.0 | 579.0 | 574.2 | 533.0 | 367.5 |
| Washington | 262.8 | 253.2 | 249.2 | 236.5 | 234.0 | 222.7 | 207.9 | 197.9 | 184.8 | 136.0 | 91.6 |
| White | 244.9 | 234.7 | 231.4 | 218.2 | 213.2 | 201.7 | 186.6 | 178.5 | 165.8 | 121.9 | 79.7 |
| Black | 555.2 | 553.3 | 542.3 | 543.0 | 530.4 | 527.7 | 517.8 | 496.7 | 500.4 | 460.6 | 362.3 |
| West Virginia | 290.4 | 277.4 | 268.3 | 254.3 | 235.2 | 226.5 | 210.6 | 195.0 | 174.1 | 130.5 | 63.5 |
| White | 273.8 | 261.6 | 252.5 | 238.2 | 219.0 | 209.9 | 195.1 | 181.1 | 160.0 | 114.7 | 53.7 |
| Black | 742.1 | 712.9 | 721.7 | 680.2 | 665.5 | 659.9 | 621.6 | 578.8 | 560.6 | 545.5 | 297.6 |
| Wisconsin | 270.6 | 261.0 | 253.0 | 242.2 | 233.5 | 219.3 | 207.2 | 196.1 | 181.2 | 138.7 | 75.7 |
| White | 204.0 | 192.5 | 186.0 | 177.0 | 170.2 | 159.0 | 149.1 | 143.5 | 133.1 | 102.1 | 60.8 |
| Black | 828.0 | 822.1 | 826.6 | 806.9 | 799.2 | 795.0 | 790.1 | 764.2 | 750.9 | 656.6 | 342.5 |
| Wyoming | 257.7 | 239.9 | 230.6 | 198.0 | 184.9 | 171.6 | 157.7 | 139.2 | 132.8 | 82.1 | 66.6 |
| White | 247.8 | 224.9 | 217.3 | 185.9 | 174.4 | 161.7 | 146.4 | 130.6 | 123.7 | 75.2 | 60.3 |
| Black | 524.6 | 507.7 | 600.0 | 447.8 | 413.3 | 391.9 | 395.3 | 523.1 | 381.0 | 397.4 | 307.7 |

[1] Totals for geographic areas include races other than white and black.

[2] Data are by race of child. Figures for the District of Columbia include an unknown number of births to unmarried women erroneously allocated to this area because of incomplete residence reporting.

* Figure does not meet standards of reliability or precision; based on fewer than 20 births.

--- Data on marital status of mother were not reported by the state in 1970.

NOTE: For the years 1980 and 1985-92, marital status of mother is inferred for births to residents of several states. See reference below.

Sources: Ventura, SJ. Births to Unmarried Mothers: United States, 1980-92. National Center for Health Statistics. Vital and Health Statistics 21(53). 1995.

Ventura SJ, JA Martin, SM Taffel, et al. Advance Report of Final Natality Statistics, 1992. Monthly Vital Statistics Report, Vol. 44, No. 3 (Suppl.). 1995.

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## Table II-6. Total births, births to unmarried women, and percent of births to unmarried women, by race of mother, for population-size groups and cities of 500,000 or more : United States, 1980 and 1992

| Population-size groups and Cities of 500,000 + | All races | | | | | | White | | | | | | Black | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1992 | | | 1980 | | | 1992 | | | 1980 | | | 1992 | | | 1980 | | |
| | Total | Unmarried | % | Total | Unmarried | % | Total | Unmarried | % | Total | Unmarried | % | Total | Unmarried | % | Total | Unmarried | % |
| United States, total | 4,065,014 | 1,224,876 | 30.1 | 3,612,258 | 665,747 | 18.4 | 3,201,678 | 721,986 | 22.6 | 2,898,732 | 320,063 | 11.2 | 673,633 | 458,969 | 68.1 | 589,616 | 325,737 | 55.2 |
| Places < 100,000 | 2,831,061 | 705,154 | 24.9 | 2,640,527 | 367,313 | 13.9 | 2,406,541 | 479,485 | 19.9 | 2,282,682 | 216,100 | 9.5 | 310,637 | 197,083 | 63.4 | 277,767 | 137,122 | 49.4 |
| Cities 100,000 + | 1,233,953 | 519,722 | 42.1 | 971,731 | 298,434 | 30.7 | 795,137 | 242,501 | 30.5 | 616,050 | 103,963 | 16.9 | 362,996 | 261,886 | 72.2 | 311,849 | 188,615 | 60.5 |
| Cities 100,000-500,000 | 622,435 | 234,730 | 37.7 | 471,116 | 128,046 | 27.2 | 430,311 | 118,969 | 27.6 | 323,812 | 48,793 | 15.1 | 153,073 | 108,756 | 71.0 | 126,498 | 74,712 | 59.1 |
| Cities 500,000 +, total | 611,518 | 284,992 | 46.6 | 500,615 | 170,388 | 34.0 | 364,826 | 123,532 | 33.9 | 292,238 | 55,170 | 18.9 | 209,923 | 153,130 | 72.9 | 185,351 | 113,903 | 61.5 |
| Baltimore, MD | 13,029 | 7,918 | 60.8 | 12,351 | 6,977 | 56.5 | 3,678 | 1,070 | 29.1 | 4,129 | 946 | 22.9 | 9,179 | 6,804 | 74.1 | 8,048 | 5,974 | 74.2 |
| Boston, MA | 9,291 | 4,482 | 48.2 | 7,673 | 2,843 | 37.1 | 4,650 | 1,572 | 33.8 | 4,424 | 1,091 | 24.7 | 3,980 | 2,742 | 68.9 | 2,936 | 1,728 | 58.9 |
| Chicago, IL | 59,494 | 33,198 | 55.8 | 57,722 | 25,712 | 44.5 | 28,871 | 9,222 | 31.9 | 27,049 | 5,232 | 19.3 | 28,520 | 23,744 | 83.3 | 28,989 | 20,348 | 70.2 |
| Cleveland, OH | 10,911 | 7,174 | 65.8 | 10,749 | 4,716 | 43.9 | 4,605 | 1,953 | 42.4 | 5,288 | 1,108 | 21.0 | 6,182 | 5,193 | 84.0 | 5,372 | 3,591 | 66.8 |
| Columbus, OH | 10,967 | 4,523 | 41.2 | 10,073 | 2,825 | 28.0 | 7,239 | 2,018 | 27.9 | 7,064 | 1,111 | 15.7 | 3,366 | 2,454 | 72.9 | 2,831 | 1,693 | 59.8 |
| Dallas, TX | 21,377 | 6,230 | 29.1 | 17,508 | 5,008 | 28.6 | 14,284 | 2,516 | 17.6 | 10,694 | 1,343 | 12.6 | 6,464 | 3,599 | 55.7 | 6,459 | 3,635 | 56.3 |
| Detroit, MI | 21,660 | 15,570 | 71.9 | 20,539 | 8,823 | 43.0 | 3,613 | 1,531 | 42.4 | 5,976 | 998 | 16.7 | 17,852 | 13,995 | 78.4 | 14,297 | 7,802 | 54.6 |
| District of Columbia | 10,960 | 7,334 | 66.9 | 9,361 | 5,284 | 56.4 | 1,607 | 244 | 15.2 | 1,407 | 227 | 16.1 | 8,803 | 6,828 | 77.6 | 7,839 | 5,041 | 64.3 |
| Houston, TX | 40,812 | 10,957 | 26.8 | 35,595 | 6,718 | 18.9 | 27,603 | 4,827 | 17.5 | 24,012 | 2,285 | 9.5 | 11,317 | 5,947 | 52.5 | 10,313 | 4,385 | 42.5 |
| Indianapolis, IN | 14,298 | 5,714 | 40.0 | 12,707 | 3,420 | 26.9 | 10,243 | 2,763 | 27.0 | 9,190 | 1,307 | 14.2 | 3,920 | 2,933 | 74.8 | 3,403 | 2,106 | 61.9 |
| Jacksonville, FL | 11,764 | 4,068 | 34.6 | 10,013 | 2,483 | 24.8 | 7,553 | 1,496 | 19.8 | 6,624 | 620 | 9.4 | 4,019 | 2,539 | 63.2 | 3,281 | 1,860 | 56.7 |
| Los Angeles, CA | 96,808 | 42,693 | 44.1 | 58,548 | 18,574 | 31.7 | 70,944 | 34,539 | 48.7 | 43,383 | 11,091 | 25.6 | 10,355 | 7,336 | 70.8 | 11,535 | 7,129 | 61.8 |
| Memphis, TN | 12,432 | 7,462 | 60.0 | 12,027 | 4,749 | 39.5 | 3,521 | 689 | 19.6 | 4,557 | 326 | 7.2 | 8,753 | 6,727 | 76.9 | 7,349 | 4,423 | 60.2 |
| Miami, FL | 16,873 | 8,556 | 50.7 | 11,292 | 4,346 | 38.5 | 9,226 | 3,183 | 34.5 | 5,533 | 806 | 14.6 | 7,477 | 5,353 | 71.6 | 5,701 | 3,529 | 61.9 |
| Milwaukee, WI | 12,437 | 7,181 | 57.7 | 11,723 | 3,957 | 33.8 | 5,834 | 1,986 | 34.0 | 7,623 | 1,342 | 17.6 | 6,045 | 5,043 | 83.4 | 3,831 | 2,540 | 66.3 |
| New York, NY | 131,742 | 60,798 | 46.1 | 102,771 | 36,938 | 35.9 | 78,776 | 27,250 | 35.5 | 58,670 | 13,615 | 23.2 | 44,328 | 29,818 | 67.3 | 37,068 | 22,227 | 60.0 |
| New Orleans, LA | 9,024 | 5,777 | 64.0 | 10,353 | 4,255 | 41.1 | 1,579 | 278 | 17.6 | 2,874 | 313 | 10.9 | 7,228 | 5,460 | 75.5 | 7,248 | 3,940 | 54.4 |
| Philadelphia, PA | 28,079 | 17,106 | 60.9 | 24,921 | 10,738 | 43.1 | 11,743 | 4,390 | 37.4 | 12,475 | 2,311 | 18.5 | 15,083 | 12,384 | 82.1 | 11,815 | 8,362 | 70.8 |
| Phoenix, AZ | 20,499 | 8,504 | 41.5 | 14,240 | 3,141 | 22.1 | 18,261 | 7,023 | 38.5 | 12,538 | 2,317 | 18.5 | 1,317 | 975 | 74.0 | 1,110 | 608 | 54.8 |
| San Antonio, TX | 20,247 | 3,969 | 19.6 | 15,739 | 2,542 | 16.2 | 18,598 | 3,345 | 18.0 | 14,392 | 2,032 | 14.1 | 1,374 | 607 | 44.2 | 1,184 | 506 | 42.7 |
| San Diego, CA | 22,183 | 7,379 | 33.3 | 13,474 | 2,976 | 22.1 | 16,960 | 5,517 | 32.5 | 9,943 | 1,778 | 17.9 | 2,358 | 1,361 | 57.7 | 1,896 | 985 | 52.0 |
| San Francisco, CA | 9,611 | 3,020 | 31.4 | 8,227 | 2,296 | 27.9 | 4,936 | 1,695 | 34.3 | 3,749 | 882 | 23.5 | 1,310 | 932 | 71.1 | 1,909 | 1,069 | 56.0 |
| San Jose, CA | 17,020 | 5,469 | 32.1 | 13,009 | 1,069 | 8.2 | 12,502 | 4,425 | 35.4 | 10,644 | 2,090 | 19.6 | 713 | 376 | 52.7 | 936 | 422 | 45.1 |

NOTE: Population size refers to populations as of 1980 census; figures by race for 1980 are by race of child.

Source: National Center for Health Statistics. Vital Statistics of the United States, Volume I, "Natality," issues for 1980 and 1992.

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## Table III-1. Female population by marital status and age: United States, selected years, 1940-92, and projections of female population to 2010

[Numbers in thousands]

| | | *Unmarried* | | | *Percent unmarried* | | |
|---|---|---|---|---|---|---|---|
| *Age & year* | *Total* | *Total* | *Never Marr'd.* | *Wid/Divorced* | *Total* | *Never Marr'd.* | *Wid/Divorced* |
| 15-19 | | | | | | | |
| 1940 | 6,153 | 5,439 | --- | --- | 88.4 | --- | --- |
| 1945 | 5,844 | 5,200 | --- | --- | 89.0 | --- | --- |
| 1950 | 5,305 | 4,434 | 4,409 | 25 | 83.6 | 83.1 | 0.5 |
| 1955 | 5,458 | 4,555 | 4,534 | 21 | 83.5 | 83.1 | 0.4 |
| 1960 | 6,586 | 5,709 | 5,683 | 26 | 86.7 | 86.3 | 0.4 |
| 1965 | 8,366 | 7,374 | 7,358 | 16 | 88.1 | 87.9 | 0.2 |
| 1970 | 9,437 | 8,485 | 8,471 | 14 | 89.9 | 89.8 | 0.1 |
| 1975 | 10,465 | 9,316 | 9,287 | 29 | 89.0 | 88.7 | 0.3 |
| 1980 | 10,413 | 9,532 | 9,501 | 31 | 91.5 | 91.2 | 0.3 |
| 1985 | 9,174 | 8,624 | 8,578 | 46 | 94.0 | 93.5 | 0.5 |
| 1990 | 8,709 | 8,236 | 8,219 | 17 | 94.6 | 94.4 | 0.2 |
| 1992 | 8,324 | 7,943 | 7,918 | 25 | 95.4 | 95.1 | 0.3 |
| 1995 | 8,659 | --- | --- | --- | --- | --- | --- |
| 2000 | 9,651 | --- | --- | --- | --- | --- | --- |
| 2005 | 10,162 | --- | --- | --- | --- | --- | --- |
| 2010 | 10,895 | --- | --- | --- | --- | --- | --- |
| 15-17 | | | | | | | |
| 1950 | 3,101 | 2,927 | 2,913 | * | 94.4 | 93.9 | * |
| 1955 | 3,333 | 3,112 | 3,110 | * | 93.4 | 93.3 | * |
| 1960 | 4,159 | 3,965 | 3,962 | * | 95.3 | 95.3 | * |
| 1965 | 5,134 | 4,986 | 4,985 | * | 97.1 | 97.1 | * |
| 1970 | 5,726 | 5,621 | 5,622 | * | 98.2 | 98.2 | * |
| 1975 | 6,324 | 6,059 | 6,059 | * | 95.8 | 95.8 | * |
| 1980 | 6,100 | 5,918 | 5,917 | * | 97.0 | 97.0 | * |
| 1985 | 5,409 | 5,310 | 5,291 | * | 98.2 | 97.8 | * |
| 1990 | 4,890 | 4,814 | 4,812 | * | 98.4 | 98.4 | * |
| 1992 | 4,959 | 4,891 | 4,886 | * | 98.6 | 98.5 | * |
| 1995 | 5,240 | --- | --- | --- | --- | --- | --- |
| 2000 | 5,755 | --- | --- | --- | --- | --- | --- |
| 2005 | 6,092 | --- | --- | --- | --- | --- | --- |
| 2010 | 6,379 | --- | --- | --- | --- | --- | --- |
| 18-19 | | | | | | | |
| 1950 | 2,204 | 1,507 | 1,496 | 11 | 68.4 | 67.9 | 0.5 |
| 1955 | 2,125 | 1,443 | 1,424 | 19 | 67.9 | 67.0 | 0.9 |
| 1960 | 2,427 | 1,744 | 1,721 | 23 | 71.9 | 70.9 | 0.9 |
| 1965 | 3,232 | 2,388 | 2,372 | 16 | 73.9 | 73.4 | 0.5 |
| 1970 | 3,711 | 2,864 | 2,849 | 15 | 77.2 | 76.8 | 0.4 |
| 1975 | 4,141 | 3,257 | 3,228 | 29 | 78.7 | 78.0 | 0.7 |
| 1980 | 4,313 | 3,614 | 3,584 | 30 | 83.8 | 83.1 | 0.7 |
| 1985 | 3,765 | 3,314 | 3,287 | 27 | 88.0 | 87.3 | 0.7 |
| 1990 | 3,819 | 3,422 | 3,407 | 15 | 89.6 | 89.2 | 0.4 |
| 1992 | 3,365 | 3,052 | 3,032 | 20 | 90.7 | 90.1 | 0.6 |
| 1995 | 3,419 | --- | --- | --- | --- | --- | --- |
| 2000 | 3,896 | --- | --- | --- | --- | --- | --- |
| 2005 | 4,070 | --- | --- | --- | --- | --- | --- |
| 2010 | 4,516 | --- | --- | --- | --- | --- | --- |

**Table III-1. Female population by marital status and age: United States, selected years, 1940-92, and projections of female population to 2010...continued**

[Numbers in thousands]

| | | Unmarried | | | Percent unmarried | | |
|---|---|---|---|---|---|---|---|
| *Age & year* | *Total* | *Total* | *Never Marr'd.* | *Wid/Divorced* | *Total* | *Never Marr'd.* | *Wid/Divorced* |
| 20-24 | | | | | | | |
| 1940 | 5,895 | 2,870 | --- | --- | 48.7 | --- | --- |
| 1945 | 5,974 | 2,562 | --- | --- | 42.9 | --- | --- |
| 1950 | 5,876 | 2,021 | 1,890 | 131 | 34.4 | 32.2 | 2.2 |
| 1955 | 5,335 | 1,664 | 1,583 | 81 | 31.2 | 29.7 | 1.5 |
| 1960 | 5,528 | 1,712 | 1,606 | 106 | 31.0 | 29.1 | 1.9 |
| 1965 | 6,846 | 2,289 | 2,163 | 126 | 33.4 | 31.6 | 1.8 |
| 1970 | 8,454 | 3,296 | 3,073 | 223 | 39.0 | 36.4 | 2.6 |
| 1975 | 9,677 | 4,300 | 3,929 | 371 | 44.4 | 40.6 | 3.8 |
| 1980 | 10,655 | 5,798 | 5,390 | 408 | 54.4 | 50.6 | 3.8 |
| 1985 | 10,541 | 6,463 | 6,098 | 365 | 61.3 | 57.9 | 3.5 |
| 1990 | 9,389 | 6,204 | 5,930 | 274 | 66.1 | 63.2 | 2.9 |
| 1992 | 9,344 | 6,363 | 5,891 | 472 | 68.1 | 63.0 | 5.1 |
| 1995 | 9,088 | --- | --- | --- | --- | --- | --- |
| 2000 | 8,838 | --- | --- | --- | --- | --- | --- |
| 2005 | 9,808 | --- | --- | --- | --- | --- | --- |
| 2010 | 10,323 | --- | --- | --- | --- | --- | --- |
| 25-29 | | | | | | | |
| 1940 | 5,646 | 1,461 | --- | --- | 25.9 | --- | --- |
| 1945 | 5,923 | 1,167 | --- | --- | 19.7 | --- | --- |
| 1950 | 6,270 | 1,050 | --- | --- | 16.7 | --- | --- |
| 1955 | 5,947 | 836 | 664 | 172 | 14.1 | 11.2 | 2.9 |
| 1960 | 5,536 | 711 | 532 | 179 | 12.8 | 9.6 | 3.2 |
| 1965 | 5,727 | 750 | 492 | 258 | 13.1 | 8.6 | 4.5 |
| 1970 | 6,855 | 1,096 | 766 | 330 | 16.0 | 11.2 | 4.8 |
| 1975 | 8,660 | 1,825 | 1,211 | 614 | 21.1 | 14.0 | 7.1 |
| 1980 | 9,816 | 2,928 | 2,051 | 877 | 29.8 | 20.9 | 8.9 |
| 1985 | 10,823 | 3,811 | 2,891 | 920 | 35.2 | 26.7 | 8.5 |
| 1990 | 10,625 | 4,105 | 3,307 | 798 | 38.6 | 31.1 | 7.5 |
| 1992 | 10,047 | 4,134 | 3,307 | 827 | 41.1 | 32.9 | 8.2 |
| 1995 | 9,623 | --- | --- | --- | --- | --- | --- |
| 2000 | 9,191 | --- | --- | --- | --- | --- | --- |
| 2005 | 8,938 | --- | --- | --- | --- | --- | --- |
| 2010 | 9,891 | --- | --- | --- | --- | --- | --- |
| 30-34 | | | | | | | |
| 1940 | 5,172 | 1,016 | --- | --- | 19.6 | --- | --- |
| 1945 | 5,539 | 1,007 | --- | --- | 18.2 | --- | --- |
| 1950 | 5,892 | 814 | --- | --- | 13.8 | --- | --- |
| 1955 | 6,306 | 733 | 448 | 733 | 11.6 | 0.0 | 11.6 |
| 1960 | 6,105 | 680 | 421 | 259 | 11.1 | 0.0 | 4.2 |
| 1965 | 5,607 | 527 | 295 | 527 | 9.4 | 0.0 | 9.4 |
| 1970 | 5,865 | 706 | 364 | 706 | 12.0 | 0.0 | 12.0 |
| 1975 | 7,173 | 1,108 | 532 | 576 | 15.4 | 7.4 | 8.0 |
| 1980 | 8,884 | 1,946 | 845 | 1,101 | 21.9 | 9.5 | 12.4 |
| 1985 | 10,081 | 2,670 | 1,340 | 1,330 | 26.5 | 13.3 | 13.2 |
| 1990 | 10,971 | 3,147 | 1,866 | 1,281 | 28.7 | 17.0 | 11.7 |
| 1992 | 11,165 | 3,376 | 2,103 | 1,273 | 30.2 | 18.8 | 11.4 |
| 1995 | 11,212 | --- | --- | --- | --- | --- | --- |
| 2000 | 9,987 | --- | --- | --- | --- | --- | --- |
| 2005 | 9,553 | --- | --- | --- | --- | --- | --- |
| 2010 | 9,297 | --- | --- | --- | --- | --- | --- |

## Table III-1. Female population by marital status and age: United States, selected years, 1940-92, and projections of female population to 2010...continued

[Numbers in thousands]

| | | Unmarried | | | Percent unmarried | | |
|---|---|---|---|---|---|---|---|
| *Age & year* | *Total* | *Total* | *Never Marr'd.* | *Wid/Divorced* | *Total* | *Never Marr'd.* | *Wid/Divorced* |
| 35-44 | | | | | | | |
| 1940 | 9,168 | 1,737 | --- | --- | 18.9 | --- | --- |
| 1945 | 9,974 | 1,738 | --- | --- | 17.4 | --- | --- |
| 1950 | 10,842 | 1,770 | 907 | 863 | 16.3 | 8.4 | 8.0 |
| 1955 | 11,584 | 1,781 | 799 | 982 | 15.4 | 6.9 | 8.5 |
| 1960 | 12,326 | 1,580 | 722 | 858 | 12.8 | 5.9 | 7.0 |
| 1965 | 12,489 | 1,479 | 605 | 874 | 11.8 | 4.8 | 7.0 |
| 1970 | 11,826 | 1,538 | 615 | 923 | 13.0 | 5.2 | 7.8 |
| 1975 | 11,631 | 1,766 | 568 | 1,198 | 15.2 | 4.9 | 10.3 |
| 1980 | 13,065 | 2,477 | 741 | 1,736 | 19.0 | 5.7 | 13.3 |
| 1985 | 16,097 | 3,720 | 1,109 | 2,611 | 23.1 | 6.9 | 16.2 |
| 1990 | 18,925 | 4,895 | 1,752 | 3,143 | 25.9 | 9.3 | 16.6 |
| 1992 | 20,139 | 5,281 | 2,149 | 3,132 | 26.2 | 10.7 | 15.6 |
| 1995 | 21,238 | --- | --- | --- | --- | --- | --- |
| 2000 | 22,697 | --- | --- | --- | --- | --- | --- |
| 2005 | 21,702 | --- | --- | --- | --- | --- | --- |
| 2010 | 20,038 | --- | --- | --- | --- | --- | --- |

* Figure does not meet standards of reliability or precision.

---Data not available.

Sources and notes: Total population: U.S. Bureau of the Census. Estimates of the population of the United States and components of change, by age, color, and sex: 1940 and 1950. Current population reports; series P-25, No. 98. Washington: U.S. Department of Commerce. 1954. Also P-25, nos. 310, 519, 917, and 1095. U.S. Bureau of the Census. United States population estimates, by age, sex, race, and Hispanic origin: 1992. Census file RESPO792. Washington: U.S. Department of Commerce. 1994. U.S. Bureau of the Census. Marital status and living arrangements. Current population reports; series P-20, nos. 82, 105, 144, 212, 287, 368, 410, 450, and 468. Washington: U.S. Department of Commerce.

Total unmarried populations are based on three-year averages of proportion unmarried in each age group, applied to July 1 estimates of total resident population. These populations are used by Division of Vital Statistics, National Center for Health Statistics, to compute birth rates by marital status. Population projections from Day JC. Population projections of the United States, by age, sex, race, and Hispanic origin: 1993 to 2050. U.S. Bureau of the Census. Current population reports; P-25, no. 1104. 1993.

## Table III-2. Male population by marital status and age: United States, selected years, 1950-92

[Numbers in thousands]

| Age & year | Total | Unmarried |  |  | Percent Unmarried |  |  |
|---|---|---|---|---|---|---|---|
|  |  | Total | Never Marr'd | Wid/Divorced | Total | Never Marr'd | Wid/Divorced |
| 14-19 (1) |  |  |  |  |  |  |  |
| 1950 | 6,229 | 6,074 | 6,068 | 6 | 97.5 | 97.4 | 0.1 |
| 1955 | 6,478 | 6,296 | 6,293 | 3 | 97.2 | 97.1 | 0.0 |
| 1960 | 7,754 | 7,534 | 7,531 | 3 | 97.2 | 97.1 | 0.0 |
| 1965 | 9,831 | 9,584 | 9,580 | 4 | 97.5 | 97.4 | 0.0 |
| 1970 | 11,497 | 11,197 | 11,196 | 1 | 97.4 | 97.4 | 0.0 |
| 1975 | 12,358 | 12,034 | 12,030 | 4 | 97.4 | 97.3 | 0.0 |
| 1980 | 10,159 | 9,892 | 9,886 | 6 | 97.4 | 97.3 | 0.1 |
| 1985 | 9,222 | 9,099 | 9,099 | 0 | 98.7 | 98.7 | 0.0 |
| 1990 | 8,722 | 8,598 | 8,595 | 3 | 98.6 | 98.5 | 0.0 |
| 1992 | 8,380 | 8,289 | 8,289 | 0 | 98.9 | 98.9 | 0.0 |
| 14-17 (1) |  |  |  |  |  |  |  |
| 1950 | 4,244 | 4,233 | 4,233 | * | 99.7 | 99.7 | * |
| 1955 | 4,614 | 4,604 | 4,604 | * | 99.8 | 99.8 | * |
| 1960 | 5,606 | 5,574 | 5,574 | * | 99.4 | 99.4 | * |
| 1965 | 7,123 | 7,079 | 7,079 | * | 99.4 | 99.4 | * |
| 1970 | 8,046 | 7,994 | 7,994 | * | 99.4 | 99.4 | * |
| 1975 | 8,480 | 8,423 | 8,421 | * | 99.3 | 99.3 | * |
| 1980 | 6,117 | 6,082 | 6,078 | * | 99.4 | 99.4 | * |
| 1985 | 5,582 | 5,565 | 5,565 | * | 99.7 | 99.7 | * |
| 1990 | 5,083 | 5,074 | 5,072 | * | 99.8 | 99.8 | * |
| 1992 | 5,097 | 5,082 | 5,082 | * | 99.7 | 99.7 | * |
| 18-19 |  |  |  |  |  |  |  |
| 1950 | 1,985 | 1,841 | 1,835 | 6 | 92.7 | 92.4 | 0.3 |
| 1955 | 1,864 | 1,692 | 1,689 | 3 | 90.8 | 90.6 | 0.2 |
| 1960 | 2,148 | 1,960 | 1,957 | 3 | 91.2 | 91.0 | 0.1 |
| 1965 | 2,708 | 2,505 | 2,501 | 4 | 92.5 | 92.4 | 0.2 |
| 1970 | 3,451 | 3,203 | 3,202 | 1 | 92.8 | 92.8 | 0.0 |
| 1975 | 3,878 | 3,611 | 3,609 | 2 | 93.1 | 93.1 | 0.0 |
| 1980 | 4,042 | 3,810 | 3,808 | 2 | 94.3 | 94.2 | 0.1 |
| 1985 | 3,640 | 3,534 | 3,534 | 0 | 97.1 | 97.1 | 0.0 |
| 1990 | 3,639 | 3,524 | 3,523 | 1 | 96.8 | 96.8 | 0.0 |
| 1992 | 3,283 | 3,207 | 3,207 | 0 | 97.7 | 97.7 | 0.0 |
| 20-24 |  |  |  |  |  |  |  |
| 1950 | 5,327 | 3,019 | 2,987 | 32 | 56.7 | 56.1 | 0.6 |
| 1955 | 3,978 | 1,955 | 1,943 | 12 | 49.1 | 48.8 | 0.3 |
| 1960 | 4,860 | 2,693 | 2,671 | 22 | 55.4 | 55.0 | 0.5 |
| 1965 | 6,074 | 3,263 | 3,215 | 48 | 53.7 | 52.9 | 0.8 |
| 1970 | 7,198 | 4,015 | 3,937 | 78 | 55.8 | 54.7 | 1.1 |
| 1975 | 8,955 | 5,496 | 5,361 | 135 | 61.4 | 59.9 | 1.5 |
| 1980 | 9,801 | 6,877 | 6,721 | 156 | 70.2 | 68.6 | 1.6 |
| 1985 | 10,055 | 7,746 | 7,605 | 141 | 77.0 | 75.6 | 1.4 |
| 1990 | 8,811 | 7,080 | 6,985 | 95 | 80.4 | 79.3 | 1.1 |
| 1992 | 8,800 | 7,188 | 7,067 | 121 | 81.7 | 80.3 | 1.3 |

## Table III-2. Male population by marital status and age: United States, selected years, 1950-92 ...continued

[Numbers in thousands]

| | | Unmarried | | | Percent Unmarried | | |
|---|---|---|---|---|---|---|---|
| Age & year | Total | Total | Never Marr'd | Wid/Divorced | Total | Never Marr'd | Wid/Divorced |
| 25-29 | | | | | | | |
| 1950 | 5,972 | --- | --- | --- | --- | --- | --- |
| 1955 | 5,602 | 1,680 | 1,573 | 107 | 30.0 | 28.1 | 1.9 |
| 1960 | 5,279 | 1,307 | 1,230 | 77 | 24.8 | 23.3 | 1.5 |
| 1965 | 5,351 | 1,015 | 922 | 93 | 19.0 | 17.2 | 1.7 |
| 1970 | 6,592 | 1,423 | 1,262 | 161 | 21.6 | 19.1 | 2.4 |
| 1975 | 8,048 | 2,141 | 1,793 | 348 | 26.6 | 22.3 | 4.3 |
| 1980 | 9,076 | 3,427 | 2,940 | 487 | 37.8 | 32.4 | 5.4 |
| 1985 | 10,420 | 4,669 | 4,037 | 632 | 44.8 | 38.7 | 6.0 |
| 1990 | 10,515 | 5,248 | 4,749 | 499 | 49.9 | 45.2 | 4.8 |
| 1992 | 10,024 | 5,380 | 4,882 | 498 | 53.7 | 48.7 | 4.9 |
| 30-34 | | | | | | | |
| 1950 | 5,625 | --- | --- | --- | --- | --- | --- |
| 1955 | 5,972 | 1,008 | 887 | 121 | 16.9 | 14.9 | 2.0 |
| 1960 | 5,834 | 882 | 754 | 128 | 15.1 | 12.9 | 2.2 |
| 1965 | 5,344 | 735 | 605 | 130 | 13.8 | 11.3 | 2.3 |
| 1970 | 5,599 | 692 | 527 | 165 | 12.4 | 9.4 | 2.9 |
| 1975 | 6,728 | 1,095 | 746 | 349 | 16.3 | 11.1 | 5.1 |
| 1980 | 8,270 | 1,960 | 1,298 | 662 | 23.7 | 15.7 | 8.0 |
| 1985 | 9,764 | 2,960 | 2,027 | 933 | 30.3 | 20.8 | 9.6 |
| 1990 | 10,947 | 3,840 | 2,955 | 885 | 35.1 | 27.0 | 8.1 |
| 1992 | 11,101 | 4,109 | 3,262 | 847 | 37.0 | 29.4 | 7.6 |
| 35-44 | | | | | | | |
| 1950 | 10,554 | 1,478 | 1,132 | 346 | 14.0 | 10.7 | 3.3 |
| 1955 | 11,082 | 1,300 | 987 | 313 | 11.7 | 8.9 | 2.8 |
| 1960 | 11,749 | 1,457 | 1,121 | 336 | 12.4 | 9.5 | 2.9 |
| 1965 | 11,810 | 1,507 | 1,106 | 401 | 12.8 | 9.4 | 3.4 |
| 1970 | 11,277 | 1,143 | 759 | 384 | 10.1 | 6.7 | 3.4 |
| 1975 | 10,992 | 1,465 | 870 | 595 | 13.3 | 7.9 | 5.4 |
| 1980 | 12,297 | 1,938 | 904 | 1,034 | 15.8 | 7.4 | 8.4 |
| 1985 | 15,333 | 3,079 | 1,444 | 1,635 | 20.1 | 9.4 | 10.7 |
| 1990 | 18,331 | 4,459 | 2,345 | 2,114 | 24.3 | 12.8 | 11.5 |
| 1992 | 19,506 | 5,057 | 2,744 | 2,313 | 25.9 | 14.1 | 11.9 |

*Figure does not meet standards of reliability or precision.

---Data not available.

(1) Figures for 1980-92 exclude men aged 14; more than 99 percent of men aged 14-17 prior to 1980 and aged 15-17 in 1980-92 were unmarried

Sources: U.S. Bureau of the Census. Marital Status and Living Arrangements. Current Population Reports, P-20, Nos. 62, 105, 144, 287, 365, 410, 450, and 468.

# Table III-3: Marital Status of Persons 15 Years and Over, by Age, Sex, Race, Hispanic Origin, Metropolitan Residence, and Region: March 1992

[Numbers in thousands. For meaning of symbols, see text]

| Subject | Total, 15 years and over | 15 to 17 years | 18 and 19 years | 20 to 24 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | 40 to 44 years | 45 to 54 years | 55 to 64 years | 65 to 74 years | 75 to 84 years | 85 years and over | Total, 18 years and over | Total, 65 years and over |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **UNITED STATES** | | | | | | | | | | | | | | | |
| **All Races** | | | | | | | | | | | | | | | |
| Both sexes | 195 243 | 9 982 | 6 587 | 17 848 | 20 132 | 22 361 | 20 953 | 18 618 | 27 023 | 21 150 | 18 441 | 9 659 | 2 490 | 185 261 | 30 590 |
| Never married | 51 691 | 9 896 | 6 182 | 13 007 | 8 238 | 5 384 | 3 239 | 1 635 | 1 701 | 1 005 | 833 | 447 | 125 | 41 795 | 1 406 |
| Married, spouse present | 107 024 | 66 | 339 | 4 083 | 9 788 | 13 841 | 14 124 | 13 398 | 19 549 | 15 298 | 11 606 | 4 376 | 555 | 106 958 | 16 537 |
| Married, spouse absent | 6 353 | 16 | 45 | 424 | 771 | 1 006 | 1 015 | 751 | 1 113 | 690 | 325 | 159 | 38 | 6 337 | 521 |
| Separated | 4 841 | 7 | 30 | 325 | 615 | 784 | 812 | 607 | 850 | 520 | 214 | 68 | 9 | 4 834 | 291 |
| Other | 1 512 | 9 | 14 | 99 | 156 | 222 | 202 | 145 | 263 | 170 | 112 | 90 | 29 | 1 503 | 231 |
| Widowed | 13 853 | - | - | 13 | 39 | 93 | 166 | 244 | 770 | 2 010 | 4 489 | 4 323 | 1 706 | 13 853 | 10 519 |
| Divorced | 16 321 | 4 | 21 | 320 | 1 295 | 2 037 | 2 409 | 2 590 | 3 891 | 2 148 | 1 187 | 355 | 65 | 16 317 | 1 607 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 26.5 | 99.1 | 93.9 | 72.9 | 40.9 | 24.1 | 15.5 | 8.8 | 6.3 | 4.7 | 4.5 | 4.6 | 5.0 | 22.6 | 4.6 |
| Married, spouse present | 54.8 | .7 | 5.2 | 22.9 | 48.6 | 61.9 | 67.4 | 72.0 | 72.3 | 72.3 | 62.9 | 45.3 | 22.3 | 57.7 | 54.1 |
| Married, spouse absent | 3.3 | .2 | .7 | 2.4 | 3.8 | 4.5 | 4.8 | 4.0 | 4.1 | 3.3 | 1.8 | 1.6 | 1.5 | 3.4 | 1.7 |
| Separated | 2.5 | .1 | .5 | 1.8 | 3.1 | 3.5 | 3.9 | 3.3 | 3.1 | 2.5 | 1.2 | .7 | .4 | 2.6 | 1.0 |
| Other | .8 | .1 | .2 | .6 | .8 | 1.0 | 1.0 | .8 | 1.0 | .8 | .6 | .9 | 1.2 | .8 | .8 |
| Widowed | 7.1 | - | - | .1 | .2 | .4 | .8 | 1.3 | 2.8 | 9.5 | 24.3 | 44.8 | 68.5 | 7.5 | 34.4 |
| Divorced | 8.4 | - | .3 | 1.8 | 6.4 | 9.1 | 11.5 | 13.9 | 14.4 | 10.2 | 6.4 | 3.7 | 2.6 | 8.8 | 5.3 |
| Male | 93 760 | 5 097 | 3 283 | 8 800 | 10 024 | 11 101 | 10 358 | 9 148 | 13 114 | 10 036 | 8 266 | 3 748 | 765 | 88 663 | 12 800 |
| Never married | 28 302 | 5 082 | 3 207 | 7 067 | 4 882 | 3 262 | 1 905 | 839 | 957 | 559 | 383 | 136 | 23 | 23 220 | 541 |
| Married, spouse present | 53 512 | 11 | 68 | 1 490 | 4 361 | 6 581 | 6 871 | 6 802 | 9 951 | 7 929 | 6 372 | 2 683 | 393 | 53 501 | 9 448 |
| Married, spouse absent | 2 665 | 4 | 8 | 122 | 283 | 410 | 460 | 315 | 473 | 320 | 164 | 83 | 21 | 2 661 | 269 |
| Separated | 1 846 | 1 | 3 | 80 | 202 | 282 | 333 | 247 | 339 | 236 | 92 | 27 | 4 | 1 845 | 122 |
| Other | 819 | 3 | 5 | 42 | 81 | 128 | 127 | 68 | 134 | 84 | 73 | 57 | 17 | 817 | 147 |
| Widowed | 2 529 | - | - | 2 | 13 | 10 | 51 | 57 | 128 | 351 | 841 | 747 | 329 | 2 529 | 1 918 |
| Divorced | 6 752 | - | - | 119 | 485 | 837 | 1 071 | 1 134 | 1 606 | 877 | 506 | 99 | 19 | 6 752 | 624 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 30.2 | 99.7 | 97.7 | 80.3 | 48.7 | 29.4 | 18.4 | 9.2 | 7.3 | 5.6 | 4.6 | 3.6 | 2.9 | 26.2 | 4.2 |
| Married, spouse present | 57.1 | .2 | 2.1 | 16.9 | 43.5 | 59.3 | 66.3 | 74.4 | 75.9 | 79.0 | 77.1 | 71.6 | 50.1 | 60.3 | 73.8 |
| Married, spouse absent | 2.8 | .1 | .3 | 1.4 | 2.8 | 3.7 | 4.4 | 3.4 | 3.6 | 3.2 | 2.0 | 2.2 | 2.7 | 3.0 | 2.1 |
| Separated | 2.0 | - | .1 | .9 | 2.0 | 2.5 | 3.2 | 2.7 | 2.6 | 2.4 | 1.1 | .7 | .5 | 2.1 | 1.0 |
| Other | .9 | .1 | .2 | .5 | .8 | 1.2 | 1.2 | .7 | 1.0 | .8 | .9 | 1.5 | 2.2 | .9 | 1.1 |
| Widowed | 2.7 | - | - | - | .1 | .1 | .5 | .6 | 1.0 | 3.5 | 10.2 | 19.9 | 41.9 | 2.9 | 15.0 |
| Divorced | 7.2 | - | - | 1.3 | 4.8 | 7.5 | 10.3 | 12.4 | 12.2 | 8.7 | 6.1 | 2.6 | 2.4 | 7.6 | 4.9 |
| Female | 101 483 | 4 884 | 3 303 | 9 048 | 10 108 | 11 260 | 10 595 | 9 470 | 13 910 | 11 114 | 10 174 | 5 911 | 1 705 | 96 599 | 17 790 |
| Never married | 23 389 | 4 813 | 2 974 | 5 940 | 3 356 | 2 122 | 1 334 | 795 | 744 | 445 | 451 | 311 | 102 | 18 576 | 864 |
| Married, spouse present | 53 512 | 55 | 272 | 2 593 | 5 428 | 7 260 | 7 253 | 6 596 | 9 598 | 7 369 | 5 234 | 1 693 | 162 | 53 457 | 7 089 |
| Married, spouse absent | 3 688 | 12 | 36 | 302 | 488 | 596 | 555 | 436 | 640 | 370 | 161 | 75 | 17 | 3 676 | 253 |
| Separated | 2 995 | 6 | 27 | 245 | 412 | 502 | 479 | 359 | 511 | 283 | 122 | 42 | 5 | 2 989 | 169 |
| Other | 693 | 6 | 9 | 57 | 76 | 94 | 76 | 76 | 129 | 86 | 39 | 34 | 12 | 687 | 84 |
| Widowed | 11 325 | - | - | 11 | 26 | 83 | 115 | 187 | 642 | 1 659 | 3 648 | 3 576 | 1 377 | 11 325 | 8 601 |
| Divorced | 9 569 | 4 | 21 | 201 | 811 | 1 200 | 1 337 | 1 456 | 2 285 | 1 271 | 681 | 255 | 46 | 9 565 | 983 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 23.0 | 98.5 | 90.0 | 65.7 | 33.2 | 18.8 | 12.6 | 8.4 | 5.3 | 4.0 | 4.4 | 5.3 | 6.0 | 19.2 | 4.9 |
| Married, spouse present | 52.7 | 1.1 | 8.2 | 28.7 | 53.7 | 64.5 | 68.5 | 69.6 | 69.0 | 66.3 | 51.4 | 28.6 | 9.5 | 55.3 | 39.8 |
| Married, spouse absent | 3.6 | .2 | 1.1 | 3.3 | 4.8 | 5.3 | 5.2 | 4.6 | 4.6 | 3.3 | 1.6 | 1.3 | 1.0 | 3.8 | 1.4 |
| Separated | 3.0 | .1 | .8 | 2.7 | 4.1 | 4.5 | 4.5 | 3.8 | 3.7 | 2.6 | 1.2 | .7 | .3 | 3.1 | .9 |
| Other | .7 | .1 | .3 | .6 | .7 | .8 | .7 | .8 | .9 | .8 | .4 | .6 | .7 | .7 | .5 |
| Widowed | 11.2 | - | - | .1 | .3 | .7 | 1.1 | 2.0 | 4.6 | 14.9 | 35.9 | 60.5 | 80.8 | 11.7 | 48.3 |
| Divorced | 9.4 | .1 | .6 | 2.2 | 8.0 | 10.7 | 12.6 | 15.4 | 16.4 | 11.4 | 6.7 | 4.3 | 2.7 | 9.9 | 5.5 |
| **White** | | | | | | | | | | | | | | | |
| Both sexes | 165 559 | 7 961 | 5 273 | 14 678 | 16 680 | 18 638 | 17 633 | 15 862 | 23 257 | 18 280 | 16 315 | 8 745 | 2 238 | 157 598 | 27 297 |
| Never married | 40 106 | 7 877 | 4 915 | 10 355 | 6 201 | 3 907 | 2 294 | 1 270 | 1 305 | 757 | 713 | 407 | 105 | 32 229 | 1 225 |
| Married, spouse present | 95 845 | 66 | 305 | 3 688 | 8 713 | 12 287 | 12 535 | 11 750 | 17 472 | 13 808 | 10 627 | 4 078 | 515 | 95 779 | 15 220 |
| Married, spouse absent | 4 311 | 16 | 38 | 345 | 591 | 691 | 690 | 494 | 681 | 429 | 199 | 105 | 32 | 4 295 | 336 |
| Separated | 3 224 | 7 | 24 | 262 | 476 | 547 | 563 | 398 | 486 | 308 | 121 | 29 | 3 | 3 218 | 154 |
| Other | 1 086 | 9 | 14 | 84 | 115 | 144 | 127 | 96 | 194 | 121 | 78 | 76 | 29 | 1 077 | 182 |
| Widowed | 11 663 | - | - | 11 | 30 | 77 | 117 | 185 | 559 | 1 538 | 3 776 | 3 848 | 1 523 | 11 663 | 9 147 |
| Divorced | 13 635 | 3 | 16 | 278 | 1 145 | 1 675 | 1 998 | 2 163 | 3 240 | 1 747 | 1 000 | 306 | 63 | 13 632 | 1 370 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 24.2 | 98.9 | 93.2 | 70.5 | 37.2 | 21.0 | 13.0 | 8.0 | 5.6 | 4.1 | 4.4 | 4.7 | 4.7 | 20.5 | 4.5 |
| Married, spouse present | 57.9 | .8 | 5.8 | 25.1 | 52.2 | 65.9 | 71.1 | 74.1 | 75.1 | 75.5 | 65.1 | 46.6 | 23.0 | 60.8 | 55.8 |
| Married, spouse absent | 2.6 | .2 | .7 | 2.4 | 3.5 | 3.7 | 3.9 | 3.1 | 2.9 | 2.3 | 1.2 | 1.2 | 1.4 | 2.7 | 1.2 |
| Separated | 1.9 | .1 | .5 | 1.8 | 2.9 | 2.9 | 3.2 | 2.5 | 2.1 | 1.7 | .7 | .3 | .1 | 2.0 | .6 |
| Other | .7 | .1 | .3 | .6 | .7 | .8 | .7 | .6 | .8 | .7 | .5 | .9 | 1.3 | .7 | .7 |
| Widowed | 7.0 | - | - | .1 | .2 | .4 | .7 | 1.2 | 2.4 | 8.4 | 23.1 | 44.0 | 68.1 | 7.4 | 33.5 |
| Divorced | 8.2 | - | .3 | 1.9 | 6.9 | 9.0 | 11.3 | 13.6 | 13.9 | 9.6 | 6.1 | 3.5 | 2.8 | 8.6 | 5.0 |
| Male | 80 049 | 4 080 | 2 639 | 7 268 | 8 385 | 9 352 | 8 846 | 7 892 | 11 427 | 8 731 | 7 323 | 3 407 | 701 | 75 970 | 11 431 |
| Never married | 22 477 | 4 064 | 2 576 | 5 707 | 3 840 | 2 505 | 1 439 | 689 | 770 | 426 | 314 | 127 | 21 | 18 413 | 461 |
| Married, spouse present | 47 959 | 11 | 55 | 1 357 | 3 886 | 5 861 | 6 132 | 5 935 | 8 904 | 7 154 | 5 808 | 2 494 | 362 | 47 948 | 8 664 |
| Married, spouse absent | 1 811 | 4 | 8 | 103 | 220 | 271 | 319 | 222 | 299 | 189 | 97 | 60 | 18 | 1 806 | 175 |
| Separated | 1 233 | 1 | 3 | 65 | 162 | 193 | 239 | 170 | 205 | 130 | 52 | 11 | 1 | 1 232 | 65 |
| Other | 578 | 3 | 5 | 38 | 58 | 78 | 80 | 52 | 95 | 59 | 45 | 49 | 17 | 575 | 111 |
| Widowed | 2 038 | - | - | 2 | 5 | 7 | 31 | 49 | 96 | 251 | 680 | 634 | 282 | 2 038 | 1 596 |
| Divorced | 5 765 | - | - | 99 | 435 | 707 | 925 | 997 | 1 358 | 710 | 424 | 92 | 18 | 5 765 | 534 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 28.1 | 99.6 | 97.6 | 78.5 | 45.8 | 26.8 | 16.3 | 8.7 | 6.7 | 4.9 | 4.3 | 3.7 | 3.0 | 24.2 | 4.0 |
| Married, spouse present | 59.9 | .3 | 2.1 | 18.7 | 46.3 | 62.7 | 69.3 | 75.2 | 77.9 | 81.9 | 79.3 | 73.2 | 51.6 | 63.1 | 75.8 |
| Married, spouse absent | 2.3 | .1 | .3 | 1.4 | 2.6 | 2.9 | 3.6 | 2.8 | 2.6 | 2.2 | 1.3 | 1.8 | 2.6 | 2.4 | 1.5 |
| Separated | 1.5 | - | .1 | .9 | 1.9 | 2.1 | 2.7 | 2.2 | 1.8 | 1.5 | .7 | .3 | .2 | 1.6 | .6 |
| Other | .7 | .1 | .2 | .5 | .7 | .8 | .9 | .7 | .8 | .7 | .6 | 1.4 | 2.4 | .8 | 1.0 |
| Widowed | 2.5 | - | - | - | .1 | .1 | .4 | .6 | .8 | 2.9 | 9.3 | 18.6 | 40.2 | 2.7 | 14.0 |
| Divorced | 7.2 | - | - | 1.4 | 5.2 | 7.6 | 10.5 | 12.6 | 11.9 | 8.1 | 5.8 | 2.7 | 2.5 | 7.6 | 4.7 |

See footnotes at end of table.

# Marital Status of Persons 15 Years and Over, by Age, Sex, Race, Hispanic Origin, Metropolitan Residence, and Region: March 1992—Con.

[Numbers in thousands. For meaning of symbols, see text]

| Subject | Total, 15 years and over | 15 to 17 years | 18 and 19 years | 20 to 24 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | 40 to 44 years | 45 to 54 years | 55 to 64 years | 65 to 74 years | 75 to 84 years | 85 years and over | Total, 18 years and over | Total, 65 years and over |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **UNITED STATES—Con.** | | | | | | | | | | | | | | | |
| **White—Con.** | | | | | | | | | | | | | | | |
| Female | 85 510 | 3 882 | 2 634 | 7 410 | 8 295 | 9 286 | 8 787 | 7 970 | 11 830 | 9 549 | 8 992 | 5 338 | 1 537 | 81 628 | 15 866 |
| Never married | 17 629 | 3 812 | 2 339 | 4 648 | 2 362 | 1 401 | 855 | 582 | 535 | 331 | 400 | 280 | 84 | 13 816 | 764 |
| Married, spouse present | 47 886 | 55 | 250 | 2 332 | 4 827 | 6 426 | 6 403 | 5 815 | 8 569 | 6 654 | 4 818 | 1 585 | 153 | 47 831 | 6 556 |
| Married, spouse absent | 2 500 | 12 | 30 | 243 | 371 | 420 | 371 | 272 | 381 | 240 | 102 | 45 | 14 | 2 488 | 161 |
| Separated | 1 991 | 5 | 21 | 197 | 314 | 353 | 324 | 228 | 282 | 178 | 69 | 18 | 2 | 1 986 | 89 |
| Other | 509 | 6 | 9 | 46 | 57 | 66 | 47 | 44 | 100 | 62 | 32 | 28 | 12 | 502 | 72 |
| Widowed | 9 626 | - | - | 9 | 25 | 70 | 66 | 136 | 463 | 1 287 | 3 095 | 3 214 | 1 242 | 9 626 | 7 551 |
| Divorced | 7 870 | 3 | 16 | 180 | 710 | 968 | 1 072 | 1 166 | 1 883 | 1 038 | 577 | 214 | 45 | 7 867 | 836 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 20.6 | 98.2 | 88.8 | 62.7 | 28.5 | 15.1 | 9.7 | 7.3 | 4.5 | 3.5 | 4.4 | 5.3 | 5.5 | 16.9 | 4.8 |
| Married, spouse present | 56.0 | 1.4 | 9.5 | 31.5 | 58.2 | 69.2 | 72.9 | 73.0 | 72.4 | 69.7 | 53.6 | 29.7 | 9.9 | 58.6 | 41.3 |
| Married, spouse absent | 2.9 | .3 | 1.1 | 3.3 | 4.5 | 4.5 | 4.2 | 3.4 | 3.2 | 2.5 | 1.1 | .9 | .9 | 3.0 | 1.0 |
| Separated | 2.3 | .1 | .8 | 2.7 | 3.8 | 3.8 | 3.7 | 2.9 | 2.4 | 1.9 | .8 | .3 | .1 | 2.4 | .6 |
| Other | .6 | .2 | .3 | .6 | .7 | .7 | .5 | .6 | .8 | .6 | .4 | .5 | .8 | .6 | .5 |
| Widowed | 11.3 | - | - | .1 | .3 | .8 | 1.0 | 1.7 | 3.9 | 13.5 | 34.4 | 60.2 | 80.8 | 11.8 | 47.6 |
| Divorced | 9.2 | .1 | .6 | 2.4 | 8.6 | 10.4 | 12.2 | 14.6 | 15.9 | 10.9 | 6.4 | 4.0 | 2.9 | 9.6 | 5.3 |
| **Black** | | | | | | | | | | | | | | | |
| Both sexes | 22 541 | 1 579 | 1 031 | 2 486 | 2 664 | 2 759 | 2 458 | 2 004 | 2 787 | 2 166 | 1 665 | 717 | 224 | 20 962 | 2 606 |
| Never married | 9 419 | 1 578 | 1 002 | 2 089 | 1 667 | 1 217 | 833 | 307 | 356 | 214 | 101 | 35 | 20 | 7 842 | 157 |
| Married, spouse present | 7 309 | - | 19 | 290 | 720 | 979 | 964 | 1 081 | 1 306 | 994 | 721 | 201 | 33 | 7 309 | 956 |
| Married, spouse absent | 1 707 | - | 5 | 70 | 152 | 260 | 265 | 214 | 376 | 218 | 96 | 44 | 6 | 1 707 | 146 |
| Separated | 1 500 | - | 5 | 62 | 130 | 216 | 235 | 192 | 339 | 192 | 85 | 38 | 6 | 1 499 | 129 |
| Other | 207 | - | - | 8 | 23 | 44 | 30 | 22 | 38 | 26 | 11 | 6 | - | 207 | 17 |
| Widowed | 1 838 | - | - | 2 | 6 | 12 | 44 | 50 | 187 | 391 | 588 | 397 | 163 | 1 838 | 1 148 |
| Divorced | 2 267 | 1 | 5 | 35 | 117 | 291 | 353 | 353 | 563 | 350 | 159 | 39 | 1 | 2 266 | 200 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 41.8 | 99.9 | 97.2 | 84.0 | 62.6 | 44.1 | 33.9 | 15.3 | 12.8 | 9.9 | 6.1 | 4.9 | 9.1 | 37.4 | 6.0 |
| Married, spouse present | 32.4 | - | 1.8 | 11.7 | 27.0 | 35.5 | 39.2 | 53.9 | 46.8 | 45.9 | 43.3 | 28.1 | 14.8 | 34.9 | 36.7 |
| Married, spouse absent | 7.6 | - | .5 | 2.8 | 5.7 | 9.4 | 10.8 | 10.7 | 13.5 | 10.1 | 5.8 | 6.2 | 2.6 | 8.1 | 5.6 |
| Separated | 6.7 | - | .5 | 2.5 | 4.9 | 7.8 | 9.5 | 9.6 | 12.1 | 8.8 | 5.1 | 5.3 | 2.6 | 7.2 | 5.0 |
| Other | .9 | - | - | .3 | .9 | 1.6 | 1.2 | 1.1 | 1.3 | 1.2 | .7 | .8 | - | 1.0 | .7 |
| Widowed | 8.2 | - | - | .1 | .2 | .4 | 1.8 | 2.5 | 6.7 | 18.0 | 35.3 | 55.3 | 72.8 | 8.8 | 44.0 |
| Divorced | 10.1 | .1 | .5 | 1.4 | 4.4 | 10.5 | 14.4 | 17.6 | 20.2 | 16.1 | 9.5 | 5.5 | .7 | 10.8 | 7.7 |
| Male | 10 252 | 796 | 501 | 1 152 | 1 237 | 1 268 | 1 123 | 905 | 1 235 | 978 | 739 | 242 | 76 | 9 457 | 1 058 |
| Never married | 4 614 | 796 | 496 | 1 018 | 806 | 606 | 404 | 126 | 178 | 117 | 59 | 9 | 2 | 3 818 | 69 |
| Married, spouse present | 3 700 | - | 6 | 103 | 341 | 449 | 461 | 589 | 664 | 517 | 425 | 120 | 27 | 3 700 | 572 |
| Married, spouse absent | 653 | - | - | 15 | 41 | 106 | 104 | 77 | 140 | 107 | 44 | 15 | 3 | 653 | 62 |
| Separated | 558 | - | - | 15 | 33 | 77 | 87 | 70 | 126 | 95 | 37 | 16 | 3 | 558 | 55 |
| Other | 96 | - | - | - | 9 | 29 | 17 | 7 | 15 | 13 | 7 | - | - | 96 | 7 |
| Widowed | 426 | - | - | - | 6 | 2 | 18 | 8 | 29 | 87 | 141 | 91 | 45 | 426 | 277 |
| Divorced | 859 | - | - | 17 | 42 | 106 | 136 | 106 | 223 | 150 | 71 | 7 | - | 859 | 78 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 45.0 | 100.0 | 98.9 | 88.3 | 65.2 | 47.8 | 36.0 | 13.9 | 14.4 | 12.0 | 7.9 | 3.6 | 2.4 | 40.4 | 6.5 |
| Married, spouse present | 36.1 | - | 1.1 | 8.9 | 27.6 | 35.4 | 41.1 | 65.1 | 53.8 | 52.9 | 57.4 | 49.7 | 35.1 | 39.1 | 54.1 |
| Married, spouse absent | 6.4 | - | - | 1.3 | 3.4 | 8.3 | 9.3 | 8.5 | 11.4 | 11.0 | 6.0 | 6.3 | 3.7 | 6.9 | 5.9 |
| Separated | 5.4 | - | - | 1.3 | 2.6 | 6.1 | 7.8 | 7.8 | 10.2 | 9.7 | 5.0 | 6.3 | 3.7 | 5.9 | 5.2 |
| Other | .9 | - | - | - | .7 | 2.3 | 1.5 | .8 | 1.2 | 1.3 | 1.0 | - | - | 1.0 | .7 |
| Widowed | 4.2 | - | - | - | .5 | .1 | 1.6 | .8 | 2.4 | 8.9 | 19.0 | 37.6 | 58.8 | 4.5 | 26.2 |
| Divorced | 8.4 | - | - | 1.5 | 3.4 | 8.3 | 12.1 | 11.7 | 18.1 | 15.3 | 9.6 | 2.9 | - | 9.1 | 7.4 |
| Female | 12 288 | 784 | 529 | 1 334 | 1 427 | 1 490 | 1 336 | 1 099 | 1 552 | 1 188 | 926 | 475 | 148 | 11 505 | 1 549 |
| Never married | 4 805 | 782 | 506 | 1 072 | 862 | 611 | 429 | 182 | 178 | 97 | 42 | 27 | 19 | 4 023 | 88 |
| Married, spouse present | 3 608 | - | 13 | 187 | 380 | 530 | 503 | 492 | 641 | 477 | 297 | 81 | 7 | 3 608 | 384 |
| Married, spouse absent | 1 054 | - | 5 | 56 | 111 | 154 | 160 | 137 | 236 | 111 | 52 | 29 | 3 | 1 053 | 84 |
| Separated | 942 | - | 5 | 48 | 97 | 139 | 147 | 122 | 213 | 97 | 48 | 23 | 3 | 941 | 74 |
| Other | 112 | - | - | 8 | 14 | 15 | 13 | 15 | 23 | 14 | 4 | 6 | - | 112 | 10 |
| Widowed | 1 412 | - | - | 2 | - | 10 | 26 | 42 | 157 | 304 | 447 | 306 | 119 | 1 412 | 871 |
| Divorced | 1 409 | 1 | 5 | 18 | 75 | 185 | 217 | 247 | 340 | 200 | 88 | 32 | 1 | 1 408 | 122 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 39.1 | 99.8 | 95.6 | 80.3 | 60.4 | 41.0 | 32.1 | 16.5 | 11.5 | 8.2 | 4.6 | 5.7 | 12.8 | 35.0 | 5.7 |
| Married, spouse present | 29.4 | - | 2.5 | 14.1 | 26.6 | 35.6 | 37.7 | 44.8 | 41.3 | 40.1 | 32.1 | 17.1 | 4.4 | 31.4 | 24.8 |
| Married, spouse absent | 8.6 | .1 | 1.0 | 4.2 | 7.8 | 10.3 | 12.0 | 12.5 | 15.2 | 9.3 | 5.6 | 6.1 | 2.0 | 9.2 | 5.4 |
| Separated | 7.7 | .1 | 1.0 | 3.6 | 6.8 | 9.3 | 11.0 | 11.1 | 13.7 | 8.1 | 5.2 | 4.8 | 2.0 | 8.2 | 4.8 |
| Other | .9 | - | - | .6 | 1.0 | 1.0 | 1.0 | 1.4 | 1.5 | 1.2 | .4 | 1.3 | - | 1.0 | .6 |
| Widowed | 11.5 | - | - | .1 | - | .7 | 1.9 | 3.8 | 10.1 | 25.6 | 48.3 | 64.4 | 80.0 | 12.3 | 56.2 |
| Divorced | 11.5 | .1 | .9 | 1.3 | 5.3 | 12.4 | 16.2 | 22.4 | 21.9 | 16.8 | 9.5 | 6.8 | 1.0 | 12.2 | 7.9 |
| **Hispanic[1]** | | | | | | | | | | | | | | | |
| Both sexes | 15 543 | 1 123 | 742 | 2 056 | 2 131 | 2 118 | 1 724 | 1 444 | 1 812 | 1 250 | 732 | 340 | 71 | 14 420 | 1 143 |
| Never married | 5 113 | 1 087 | 643 | 1 331 | 804 | 501 | 297 | 143 | 172 | 68 | 41 | 21 | 5 | 4 026 | 67 |
| Married, spouse present | 7 749 | 32 | 86 | 630 | 1 100 | 1 281 | 1 077 | 966 | 1 174 | 817 | 428 | 142 | 15 | 7 717 | 585 |
| Married, spouse absent | 988 | 3 | 11 | 77 | 125 | 180 | 152 | 134 | 147 | 111 | 33 | 13 | 1 | 984 | 47 |
| Separated | 599 | - | 6 | 42 | 72 | 96 | 98 | 79 | 94 | 75 | 28 | 8 | - | 599 | 36 |
| Other | 389 | 3 | 6 | 35 | 53 | 84 | 54 | 55 | 53 | 36 | 6 | 4 | 1 | 385 | 11 |
| Widowed | 639 | - | - | 2 | 5 | 14 | 13 | 28 | 80 | 115 | 187 | 147 | 48 | 639 | 383 |
| Divorced | 1 054 | - | 2 | 15 | 97 | 141 | 185 | 174 | 239 | 139 | 43 | 17 | 2 | 1 054 | 62 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (B) | 100.0 | 100.0 |
| Never married | 32.9 | 96.9 | 86.6 | 64.8 | 37.7 | 23.7 | 17.2 | 9.9 | 9.5 | 5.4 | 5.5 | 6.3 | (B) | 27.9 | 5.8 |
| Married, spouse present | 49.9 | 2.8 | 11.6 | 30.6 | 51.6 | 60.5 | 62.5 | 66.9 | 64.8 | 65.4 | 58.4 | 41.9 | (B) | 53.5 | 51.2 |
| Married, spouse absent | 6.4 | .3 | 1.5 | 3.8 | 5.9 | 8.5 | 8.8 | 9.3 | 8.1 | 8.9 | 4.5 | 3.7 | (B) | 6.8 | 4.1 |
| Separated | 3.9 | - | .8 | 2.0 | 3.4 | 4.6 | 5.7 | 5.5 | 5.2 | 6.0 | 3.8 | 2.4 | (B) | 4.2 | 3.1 |
| Other | 2.5 | .3 | .8 | 1.7 | 2.5 | 4.0 | 3.1 | 3.8 | 2.9 | 2.9 | .8 | 1.3 | (B) | 2.7 | 1.0 |
| Widowed | 4.1 | - | - | .1 | .2 | .6 | .7 | 1.9 | 4.4 | 9.2 | 25.6 | 43.2 | (B) | 4.4 | 33.5 |
| Divorced | 6.8 | - | .3 | .7 | 4.6 | 6.7 | 10.7 | 12.0 | 13.2 | 11.1 | 5.9 | 4.9 | (B) | 7.3 | 5.4 |

See footnotes at end of table.

# Marital Status of Persons 15 Years and Over, by Age, Sex, Race, Hispanic Origin, Metropolitan Residence, and Region: March 1992—Con.

[Numbers in thousands. For meaning of symbols, see text]

| Subject | Total, 15 years and over | 15 to 17 years | 18 and 19 years | 20 to 24 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | 40 to 44 years | 45 to 54 years | 55 to 64 years | 65 to 74 years | 75 to 84 years | 85 years and over | Total, 18 years and over | Total, 65 years and over |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **UNITED STATES—Con.** | | | | | | | | | | | | | | | |
| **Hispanic[1]—Con.** | | | | | | | | | | | | | | | |
| Male | 7 738 | 586 | 389 | 1 058 | 1 140 | 1 087 | 862 | 732 | 860 | 597 | 310 | 128 | 29 | 7 171 | 466 |
| Never married | 2 882 | 559 | 345 | 760 | 521 | 293 | 179 | 80 | 92 | 35 | 14 | 3 | - | 2 323 | 17 |
| Married, spouse present | 3 859 | 8 | 19 | 259 | 515 | 652 | 541 | 490 | 584 | 451 | 237 | 91 | 14 | 3 854 | 342 |
| Married, spouse absent | 450 | 1 | 4 | 33 | 61 | 89 | 66 | 71 | 64 | 41 | 11 | 7 | 1 | 449 | 19 |
| Separated | 184 | - | - | 12 | 24 | 34 | 27 | 32 | 25 | 19 | 8 | 3 | - | 184 | 11 |
| Other | 267 | 1 | 4 | 22 | 37 | 55 | 40 | 39 | 39 | 22 | 3 | 4 | 1 | 265 | 8 |
| Widowed | 119 | - | - | - | - | 3 | 3 | 13 | 20 | 13 | 34 | 21 | 12 | 119 | 68 |
| Divorced | 426 | - | - | 6 | 42 | 50 | 73 | 77 | 99 | 57 | 14 | 6 | 2 | 426 | 21 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (B) | 100.0 | 100.0 |
| Never married | 37.3 | 98.8 | 93.6 | 71.8 | 45.7 | 27.0 | 20.8 | 10.9 | 10.7 | 5.9 | 4.6 | 2.3 | (B) | 32.4 | 3.7 |
| Married, spouse present | 49.9 | 1.0 | 5.2 | 24.5 | 45.2 | 60.0 | 62.7 | 67.0 | 68.0 | 75.5 | 76.4 | 71.1 | (B) | 53.7 | 73.3 |
| Married, spouse absent | 5.8 | .2 | 1.2 | 3.1 | 5.4 | 8.2 | 7.7 | 9.8 | 7.4 | 6.9 | 3.6 | 5.2 | (B) | 6.3 | 4.0 |
| Separated | 2.4 | - | - | 1.1 | 2.1 | 3.1 | 3.1 | 4.4 | 2.9 | 3.3 | 2.6 | 2.4 | (B) | 2.6 | 2.4 |
| Other | 3.4 | .2 | 1.2 | 2.0 | 3.3 | 5.0 | 4.6 | 5.4 | 4.5 | 3.7 | 1.0 | 2.9 | (B) | 3.7 | 1.7 |
| Widowed | 1.5 | - | - | - | - | .3 | .4 | 1.7 | 2.4 | 2.1 | 11.0 | 16.6 | (B) | 1.7 | 14.5 |
| Divorced | 5.5 | - | - | .5 | 3.7 | 4.6 | 8.5 | 10.6 | 11.6 | 9.5 | 4.4 | 4.7 | (B) | 5.9 | 4.5 |
| Female | 7 806 | 557 | 373 | 997 | 991 | 1 031 | 862 | 712 | 952 | 654 | 422 | 212 | 43 | 7 249 | 677 |
| Never married | 2 231 | 528 | 297 | 571 | 283 | 208 | 118 | 63 | 80 | 33 | 26 | 18 | 5 | 1 703 | 50 |
| Married, spouse present | 3 890 | 26 | 67 | 371 | 585 | 629 | 537 | 476 | 590 | 368 | 191 | 51 | 1 | 3 863 | 243 |
| Married, spouse absent | 537 | 2 | 7 | 44 | 64 | 92 | 86 | 62 | 83 | 70 | 22 | 6 | - | 535 | 28 |
| Separated | 415 | - | 6 | 30 | 48 | 62 | 72 | 47 | 69 | 56 | 19 | 5 | - | 415 | 25 |
| Other | 122 | 2 | 1 | 14 | 16 | 29 | 14 | 15 | 14 | 14 | 3 | 1 | - | 120 | 3 |
| Widowed | 520 | - | - | 2 | 5 | 11 | 10 | 15 | 59 | 103 | 153 | 125 | 36 | 520 | 315 |
| Divorced | 628 | - | 2 | 9 | 55 | 91 | 112 | 96 | 139 | 82 | 29 | 11 | 1 | 628 | 41 |
| Percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (B) | 100.0 | 100.0 |
| Never married | 28.6 | 94.9 | 79.6 | 57.2 | 28.5 | 20.2 | 13.7 | 8.8 | 8.4 | 5.0 | 6.3 | 8.7 | (B) | 23.5 | 7.3 |
| Married, spouse present | 49.8 | 4.7 | 17.9 | 37.2 | 59.0 | 61.0 | 62.3 | 66.8 | 62.0 | 56.1 | 45.2 | 24.3 | (B) | 53.3 | 36.0 |
| Married, spouse absent | 6.9 | .4 | 1.8 | 4.4 | 6.4 | 8.9 | 9.9 | 8.8 | 8.8 | 10.7 | 5.2 | 2.7 | (B) | 7.4 | 4.1 |
| Separated | 5.3 | - | 1.5 | 3.0 | 4.8 | 6.1 | 8.3 | 6.6 | 7.3 | 8.5 | 4.6 | 2.4 | (B) | 5.7 | 3.6 |
| Other | 1.6 | .4 | .3 | 1.4 | 1.6 | 2.8 | 1.6 | 2.2 | 1.5 | 2.1 | .6 | 4 | (B) | 1.7 | 5 |
| Widowed | 6.7 | - | - | .2 | .5 | 1.0 | 1.1 | 2.1 | 6.3 | 15.7 | 36.3 | 59.2 | (B) | 7.2 | 46.5 |
| Divorced | 8.0 | - | .6 | .9 | 5.5 | 8.9 | 12.9 | 13.5 | 14.6 | 12.5 | 7.0 | 5.1 | (B) | 8.7 | 6.0 |

Source: Bachu, Amara. 1993. Fertility of American Women: June 1992. *Current Population Reports*, Series P-20, No. 470. U.S Bureau of the Census, Department of Commerce.

## Table III - 4: Percent Who Have Ever Cohabited, 1987-88 and 1992-94

| | Total | | 25-34 | | 35-44 | |
|---|---|---|---|---|---|---|
| | 1987-88 | 1992-94 | 1987-88 | 1992-94 | 1987-88 | 1992-94 |
| **Age** | | | | | | |
| 19-22* | 18 | 27 | | | | |
| 25-29 | 40 | 49 | | | | |
| 30-34 | 44 | 48 | | | | |
| 35-39 | 34 | 49 | | | | |
| 40-44 | 26 | 41 | | | | |
| 45-49 | 20 | 30 | | | | |
| 50-54 | 14 | 26 | | | | |
| **Persons 25-44** | | | | | | |
| Total | 37 | 47 | 42 | 47 | 31 | 45 |
| Race / Ethnicity | | | | | | |
| Black | 43 | 50 | 48 | 50 | 36 | 49 |
| White | 36 | 47 | 42 | 49 | 30 | 45 |
| Mex/Am | 30 | 38 | 34 | 38 | 24 | 39 |
| Education | | | | | | |
| 0-11 | 41 | 55 | 47 | 62 | 34 | 48 |
| 12 | 35 | 48 | 42 | 51 | 26 | 43 |
| Some Col | 41 | 47 | 46 | 45 | 36 | 49 |
| Col Grad | 33 | 41 | 36 | 37 | 30 | 42 |
| Gender | | | | | | |
| Male | 37 | 47 | 42 | 47 | 32 | 48 |
| Female | 36 | 46 | 42 | 50 | 29 | 42 |

* 1992-94 estimates for ages 19-22 from interviews

Source: Bumpass, L.L. and J.A. Sweet. 1995. Cohabitation, Marriage and Union Stability: Preliminary Findings from NSFH2. CDE Working Paper 65. Madison: Center for Demography and Ecology, University of Wisconsin

Table III - 5: Percent Currently Cohabiting, 1987-88 and 1992-94

| | Percent of Total | | Percent of Unmarried | |
|---|---|---|---|---|
| | 1987-88 | 1992-94 | 1987-88 | 1992-94 |
| **Age** | | | | |
| 25-29 | 7.2 | 12.9 | 16.8 | 23.3 |
| 30-34 | 4.9 | 8.6 | 16.6 | 21.9 |
| 35-39 | 3.7 | 6.5 | 16.5 | 21.8 |
| 40-44 | 3.9 | 4.8 | 17.0 | 17.9 |
| 45-49 | 2.9 | 4.2 | 12.9 | 15.9 |
| 50-54 | 0.9 | 3.7 | 3.6 | 15.6 |
| 55-59 | 1.9 | 2.3 | 7.2 | 7.6 |
| 60-65 | 0.5 | 0.6 | 1.9 | 2.1 |
| **Persons 25-39** | | | | |
| Race / Ethnicity | | | | |
| Black | 6.3 | 12.2 | 11.4 | 17.9 |
| White | 5.1 | 8.5 | 18.5 | 23.4 |
| Education | | | | |
| Less than HS Grad | 9.3 | 13.5 | 22.5 | 27.3 |
| HS Grad | 5.3 | 10.9 | 17.9 | 26.9 |
| Some Col | 4.9 | 8.8 | 14.9 | 19.8 |
| Col Grad | 4.1 | 5.9 | 14.1 | 16.6 |

Source: Bumpass, L.L. and J.A. Sweet 1995. Cohabitation, Marriage and Union Stability: Preliminary Findings from NSFH2. CDE Working Paper 65. Madison: Center for Demography and Ecology, University of Wisconsin.

Table III - 6: Percent Currently Cohabiting and Percent Ever Cohabiting, by Sex and Age, 1987-88 and 1992-94

| | Currently Cohabiting | | | | Ever Cohabited | |
|---|---|---|---|---|---|---|
| | All | | Unmarried | | All | |
| | 1987-88 | 1992-94 | 1987-88 | 1992-94 | 1987-88 | 1992-94 |
| Males | | | | | | |
| 20-24 | 6 | * | 7 | * | 21 | * |
| 25-29 | 7 | 14 | 15 | 23 | 40 | 49 |
| 30-34 | 6 | 10 | 20 | 24 | 44 | 48 |
| 35-39 | 5 | 6 | 26 | 20 | 34 | 49 |
| 40-44 | 4 | 5 | 22 | 20 | 26 | 41 |
| 45-49 | 4 | 4 | 20 | 23 | 20 | 30 |
| 50-54 | 2 | 6 | 10 | 31 | 14 | 26 |
| Females | | | | | | |
| 20-24 | 10 | * | 14 | * | 32 | * |
| 25-29 | 7 | 12 | 20 | 23 | 42 | 52 |
| 30-34 | 4 | 7 | 14 | 19 | 41 | 49 |
| 35-39 | 2 | 7 | 10 | 23 | 32 | 47 |
| 40-44 | 4 | 5 | 14 | 16 | 24 | 38 |
| 45-49 | 2 | 4 | 8 | 12 | 16 | 30 |
| 50-54 | 1 | 2 | 1 | 6 | 12 | 21 |

* not available for the dates 1992-94

Source: Bumpass, L.L. Personal communication. National Survey of Families and Households, Waves 1 and 2.

## Table III-7. Birth rates for married women by age of mother and race: United States, 1950, 1955, and 1960-93

[Rates are live births to married women per 1,000 married women in specified group. Beginning 1970 excludes births to nonresidents of the United States.]

| Year and race | Age of mother |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  |  | 15-19 years |  |  |  |  |  |  |  |
|  | 15-44 years[1] | Total | 15-17 years | 18-19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years[2] |
| ALL RACES |  |  |  |  |  |  |  |  |  |
| Reported/Inferred[3] |  |  |  |  |  |  |  |  |  |
| 1993 | 86.8 | 388.0 | 578.5 | 346.5 | 208.1 | 157.5 | 99.6 | 38.0 | 7.0 |
| 1992 | 89.0 | 397.8 | 579.9 | 358.8 | 212.9 | 160.0 | 98.5 | 37.3 | 6.8 |
| 1991 | 89.9 | 410.4 | 564.2 | 377.8 | 212.5 | 159.6 | 96.7 | 36.9 | 6.3 |
| 1990 | 93.2 | 420.2 | 610.9 | 385.1 | 216.7 | 161.8 | 97.7 | 36.4 | 6.2 |
| 1989 | 91.9 | 394.5 | 538.1 | 363.0 | 212.4 | 157.4 | 93.8 | 34.5 | 6.0 |
| 1988 | 90.8 | 371.0 | 440.1 | 353.1 | 209.3 | 153.7 | 91.0 | 32.2 | 5.5 |
| 1987 | 90.0 | 358.8 | 406.3 | 345.5 | 202.9 | 151.0 | 87.8 | 30.3 | 5.1 |
| 1986 | 90.7 | 351.8 | 429.3 | 332.8 | 204.2 | 147.8 | 85.7 | 28.2 | 4.7 |
| 1985 | 93.3 | 357.4 | 483.7 | 327.5 | 206.2 | 149.6 | 84.9 | 27.7 | 4.6 |
| 1984[4] | 93.1 | 356.5 | 519.1 | 323.4 | 205.5 | 146.3 | 82.3 | 26.3 | 4.5 |
| 1983[4] | 93.6 | 348.1 | 471.0 | 322.1 | 202.8 | 145.6 | 79.1 | 25.3 | 4.4 |
| 1982[4] | 96.2 | 354.0 | 470.1 | 327.0 | 206.2 | 147.8 | 77.4 | 24.2 | 4.4 |
| 1981[4] | 96.0 | 331.9 | 422.0 | 308.6 | 201.4 | 146.5 | 73.6 | 22.5 | 4.3 |
| 1980[4] | 97.0 | 349.5 | 486.1 | 318.0 | 202.4 | 145.2 | 72.5 | 22.0 | 4.4 |
| Estimated[5] |  |  |  |  |  |  |  |  |  |
| 1980[4] | 97.8 | 350.0 | 481.5 | 319.7 | 204.0 | 146.3 | 73.2 | 22.3 | 4.5 |
| 1979[4] | 96.4 | 331.8 | 473.4 | 299.2 | 196.7 | 143.3 | 71.3 | 22.0 | 4.5 |
| 1978[4] | 93.6 | 323.1 | 463.8 | 284.7 | 187.5 | 137.0 | 67.5 | 21.2 | 4.6 |
| 1977[4] | 94.9 | 309.2 | 471.6 | 271.1 | 188.2 | 138.2 | 64.8 | 21.4 | 4.9 |
| 1976[4] | 91.6 | 307.6 | 490.6 | 265.8 | 178.3 | 129.3 | 60.7 | 20.9 | 4.9 |
| 1975[4] | 92.1 | 313.1 | 482.1 | 270.6 | 178.5 | 129.7 | 58.6 | 21.3 | 5.3 |
| 1974[4] | 94.2 | 324.1 | 484.4 | 281.0 | 182.5 | 131.6 | 59.9 | 21.9 | 5.5 |
| 1973[4] | 94.7 | 340.3 | 527.4 | 292.1 | 181.1 | 130.8 | 61.2 | 23.8 | 6.2 |
| 1972[4] | 100.8 | 376.0 | 602.8 | 324.6 | 194.8 | 136.0 | 65.6 | 26.7 | 7.1 |
| 1971[6] | 113.2 | 414.3 | 712.5 | 354.1 | 223.7 | 154.2 | 73.5 | 30.9 | 8.2 |
| 1970[6] | 121.1 | 443.7 | 720.3 | 386.3 | 246.6 | 164.3 | 79.2 | 34.2 | 9.5 |
| 1969[6] | 118.8 | 437.8 | 693.0 | 385.0 | 245.1 | 161.3 | 79.4 | 35.8 | 10.2 |
| 1968[6] | 116.6 | 435.9 | 605.8 | 395.6 | 242.6 | 156.9 | 79.8 | 37.5 | 11.4 |
| 1967[7] | 118.7 | 439.8 | 614.1 | 399.9 | 246.2 | 158.2 | 84.7 | 40.9 | 12.4 |
| 1966[8] | 123.6 | 456.4 | 674.9 | 412.3 | 260.9 | 164.1 | 90.9 | 44.7 | 13.7 |
| 1965[8] | 130.2 | 462.7 | --- | --- | 273.6 | 178.6 | 100.4 | 49.9 | 14.8 |
| 1964[8] | 141.8 | 480.2 | --- | --- | 307.8 | 197.8 | 110.2 | 54.7 | 15.9 |
| 1963[8] | 145.9 | 486.6 | --- | --- | 320.6 | 205.6 | 114.2 | 56.9 | 16.2 |
| 1962[8] | 150.8 | 502.1 | --- | --- | 335.8 | 213.6 | 118.9 | 59.6 | 16.8 |
| 1961[8] | 155.8 | 521.5 | --- | --- | 347.0 | 220.7 | 124.5 | 64.0 | 17.5 |
| 1960[8] | 156.6 | 530.6 | --- | --- | 353.6 | 221.0 | 123.9 | 61.8 | 18.3 |
| 1955 | 153.7 | 460.2 | --- | --- | 332.1 | 213.7 | 126.8 | 64.8 | 19.3 |
| 1950 | 141.0 | 410.4 | --- | --- | 282.6 | 191.8 | 115.7 | 59.0 | 18.3 |
| WHITE |  |  |  |  |  |  |  |  |  |
| Race of mother |  |  |  |  |  |  |  |  |  |
| Reported/Inferred[3] |  |  |  |  |  |  |  |  |  |
| 1993 | 87.6 | 379.4 | * | * | 208.2 | 159.2 | 100.4 | 37.7 | 6.8 |
| 1992 | 89.6 | 389.2 | * | * | 211.8 | 161.6 | 99.1 | 37.0 | 6.6 |
| 1991 | 90.6 | 402.6 | * | * | 211.3 | 161.3 | 97.4 | 36.7 | 6.1 |
| 1990 | 94.1 | 414.4 | * | * | 216.3 | 164.4 | 98.9 | 36.1 | 6.0 |
| 1989 | 92.9 | 386.3 | * | * | 213.0 | 160.0 | 95.2 | 34.4 | 5.7 |
| 1988 | 91.7 | 363.7 | * | * | 209.0 | 156.4 | 92.3 | 31.9 | 5.2 |
| 1987 | 91.1 | 355.2 | * | * | 202.1 | 153.9 | 89.2 | 30.0 | 4.8 |
| 1986 | 91.7 | 345.3 | * | * | 203.0 | 149.9 | 87.0 | 27.6 | 4.4 |
| 1985 | 94.1 | 348.5 | * | * | 204.9 | 151.3 | 86.1 | 27.1 | 4.3 |
| 1984[4] | 93.7 | 349.1 | * | * | 203.6 | 147.8 | 83.0 | 25.7 | 4.2 |
| 1983[4] | 94.3 | 343.1 | * | * | 201.4 | 147.6 | 79.6 | 24.6 | 4.1 |
| 1982[4] | 96.8 | 352.7 | * | * | 205.3 | 149.9 | 77.4 | 23.4 | 4.1 |
| 1981[4] | 96.6 | 331.0 | * | * | 201.0 | 148.6 | 73.4 | 21.6 | 4.0 |
| 1980[4] | 97.5 | 352.7 | * | * | 201.9 | 147.1 | 71.9 | 21.0 | 4.0 |

## Table III-7. Birth rates for married women by age of mother and race: United States, 1950, 1955, and 1960-93..continued

[Rates are live births to married women per 1,000 married women in specified group. Beginning 1970 excludes births to nonresidents of the United States.]

| Year and race | Age of mother |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | 15-44 years[1] | 15-19 years |  |  | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years[2] |
|  |  | Total | 15-17 years | 18-19 years |  |  |  |  |  |
| WHITE...cont. |  |  |  |  |  |  |  |  |  |
| Race of child |  |  |  |  |  |  |  |  |  |
| Estimated[6] |  |  |  |  |  |  |  |  |  |
| 1980 [4] | 97.4 | 352.0 | * | * | 201.5 | 146.9 | 72.0 | 21.0 | 4.1 |
| 1979 [4] | 95.8 | 331.8 | * | * | 193.3 | 143.5 | 70.2 | 20.8 | 4.2 |
| 1978 [4] | 92.9 | 318.4 | * | * | 184.3 | 137.3 | 66.5 | 20.0 | 4.2 |
| 1977 [4] | 94.3 | 305.2 | * | * | 185.6 | 138.8 | 64.0 | 20.1 | 4.5 |
| 1976 [4] | 91.1 | 303.9 | * | * | 176.5 | 129.8 | 60.0 | 19.7 | 4.6 |
| 1975 [4] | 91.5 | 309.4 | * | * | 177.0 | 130.1 | 58.2 | 20.1 | 4.9 |
| 1974 [4] | 93.6 | 318.5 | * | * | 181.2 | 132.5 | 59.5 | 20.8 | 5.1 |
| 1973 [4] | 93.6 | 328.4 | * | * | 179.0 | 131.7 | 60.6 | 22.6 | 5.8 |
| 1972 [4] | 99.4 | 364.5 | * | * | 192.3 | 136.2 | 64.6 | 25.4 | 6.6 |
| 1971 [6] | 111.7 | 402.5 | * | * | 221.3 | 154.6 | 72.1 | 29.3 | 7.6 |
| 1970 [6] | 119.6 | 431.8 | * | * | 244.0 | 164.9 | 78.2 | 32.7 | 8.8 |
| 1969 [6] | 117.1 | 423.1 | * | * | 242.5 | 162.3 | 79.8 | 34.2 | 9.6 |
|  |  |  |  |  |  |  |  | -----35-44 years----- |  |
| 1968 [6] | 114.8 | 422.0 | * | * | 240.0 | 157.8 | 78.7 | 23.1 [2] |  |
| 1967 [7] | 116.5 | 424.1 | * | * | 243.5 | 158.1 | 83.3 | 25.2 [2] |  |
| 1966 [6] | 121.1 | 438.8 | * | * | 258.3 | 163.4 | 89.6 | 27.7 [2] |  |
| 1965 [6] | 127.5 | 443.2 | --- | --- | 270.9 | 177.3 | 98.9 | 30.8 [2] |  |
| 1964 [6] | 139.0 | 461.0 | --- | --- | 306.8 | 196.8 | 108.5 | 33.6 [2] |  |
| 1963 [6] | 143.0 | 473.0 | --- | --- | 318.9 | 204.1 | 112.5 | 34.8 [2] |  |
| 1962 [6] | 147.8 | 490.5 | --- | --- | 334.3 | 212.0 | 117.0 | 36.4 [2] |  |
| 1961 [6] | 152.7 | 505.3 | --- | --- | 345.9 | 219.2 | 122.5 | 38.9 [2] |  |
| 1960 [6] | 153.6 | 513.0 | --- | --- | 352.5 | 220.5 | 121.6 | 39.7 [2] |  |
| 1955 | 150.6 | 440.9 | --- | --- | 328.5 | 211.2 | 126.2 | 42.2 [2] |  |
| 1950 | 139.3 | 398.5 | --- | --- | 281.2 | 193.1 | 115.9 | 39.3 [2] |  |
| ALL OTHER |  |  |  |  |  |  |  |  |  |
| Race of mother |  |  |  |  |  |  |  |  |  |
| Reported/Inferred[3] |  |  |  |  |  |  |  |  |  |
| 1993 | 81.8 | 482.2 | * | * | 207.1 | 146.8 | 94.3 | 39.7 | 8.3 |
| 1992 | 84.8 | 492.6 | * | * | 221.6 | 149.5 | 94.9 | 39.5 | 8.0 |
| 1991 | 85.6 | 493.2 | * | * | 221.4 | 148.2 | 91.9 | 38.4 | 7.9 |
| 1990 | 87.4 | 507.9 | * | * | 220.3 | 145.7 | 90.4 | 37.9 | 8.0 |
| 1989 | 85.5 | 486.2 | * | * | 208.4 | 140.8 | 85.1 | 35.3 | 7.9 |
| 1988 | 84.5 | 457.3 | * | * | 211.7 | 136.1 | 83.0 | 34.1 | 7.5 |
| 1987 | 82.6 | 398.2 | * | * | 209.6 | 131.7 | 79.0 | 32.2 | 6.8 |
| 1986 | 84.3 | 442.6 | * | * | 214.2 | 133.6 | 77.7 | 31.7 | 6.8 |
| 1985 | 87.4 | 484.2 | * | * | 217.3 | 137.7 | 77.1 | 32.4 | 6.5 |
| 1984 [4] | 88.6 | 447.4 | * | * | 222.1 | 135.6 | 77.2 | 30.9 | 6.6 |
| 1983 [4] | 88.8 | 412.4 | * | * | 215.0 | 131.9 | 76.0 | 30.2 | 6.6 |
| 1982 [4] | 91.8 | 362.7 | * | * | 214.0 | 133.9 | 77.4 | 29.8 | 6.7 |
| 1981 [4] | 91.4 | 335.7 | * | * | 205.0 | 132.1 | 75.0 | 29.1 | 6.7 |
| 1980 [4] | 93.5 | 320.0 | * | * | 207.2 | 131.3 | 76.2 | 29.6 | 7.0 |
| Race of child |  |  |  |  |  |  |  |  |  |
| Estimated[6] |  |  |  |  |  |  |  |  |  |
| 1980 [4] | 100.5 | 331.7 | * | * | 224.0 | 141.5 | 81.7 | 31.9 | 7.3 |
| 1979 [4] | 101.2 | 332.2 | * | * | 226.0 | 141.7 | 79.6 | 31.2 | 7.1 |
| 1978 [4] | 99.4 | 369.0 | * | * | 214.3 | 135.1 | 75.0 | 30.8 | 7.2 |
| 1977 [4] | 99.2 | 347.5 | * | * | 208.8 | 133.9 | 71.4 | 31.3 | 7.6 |
| 1976 [4] | 95.4 | 339.3 | * | * | 192.3 | 125.6 | 65.4 | 30.4 | 7.5 |
| 1975 [4] | 96.2 | 342.5 | * | * | 189.1 | 126.8 | 62.1 | 30.4 | 8.3 |
| 1974 [4] | 98.5 | 367.4 | * | * | 192.8 | 124.4 | 62.6 | 30.7 | 8.6 |
| 1973 [4] | 102.3 | 440.5 | * | * | 196.4 | 124.1 | 65.3 | 32.4 | 9.9 |
| 1972 [4] | 111.2 | 465.1 | * | * | 214.2 | 134.4 | 72.9 | 36.6 | 11.3 |
| 1971 [6] | 124.6 | 500.8 | * | * | 243.2 | 151.1 | 83.2 | 42.6 | 13.1 |
| 1970 [6] | 132.8 | 522.4 | * | * | 267.6 | 159.3 | 86.7 | 46.1 | 14.5 |
| 1969 [6] | 131.7 | 529.9 | * | * | 266.5 | 153.1 | 86.9 | 47.8 | 14.9 |

## Table III-7. Birth rates for married women by age of mother and race: United States, 1950, 1955, and 1960-93..continued

[Rates are live births to married women per 1,000 married women in specified group. Beginning 1970 excludes births to nonresidents of the United States.]

| Year and race | Age of mother: 15-44 years1 | 15-19 years: Total | 15-19 years: 15-17 years | 15-19 years: 18-19 years | 20-24 years | 25-29 years | 30-34 years | 35-39 years | 40-44 years2 |
|---|---|---|---|---|---|---|---|---|---|
| ALL OTHER...cont. | | | | | | | | | |
| | | | | | | | | -----35-44 years----- | |
| 1968[6] | 130.6 | 518.9 | * | * | 263.9 | 150.4 | 88.0 | 33.4[2] | |
| 1967[7] | 135.5 | 536.1 | * | * | 268.1 | 159.0 | 94.2 | 36.2[2] | |
| 1966[6] | 141.9 | 577.8 | * | * | 280.7 | 169.2 | 100.5 | 39.5[2] | |
| 1965[6] | 150.9 | 602.4 | --- | --- | 293.3 | 188.6 | 110.3 | 42.9[2] | |
| 1964[6] | 163.3 | 616.4 | --- | --- | 315.1 | 205.6 | 122.0 | 47.8[2] | |
| 1963[6] | 168.6 | 580.2 | --- | --- | 333.7 | 217.0 | 126.1 | 49.1[2] | |
| 1962[6] | 174.2 | 583.3 | --- | --- | 346.8 | 224.6 | 132.6 | 51.6[2] | |
| 1961[6] | 179.6 | 645.1 | --- | --- | 355.0 | 231.4 | 139.3 | 53.8[2] | |
| 1960[6] | 180.9 | 659.3 | --- | --- | 361.8 | 225.0 | 142.1 | 53.5[2] | |
| 1955 | 180.2 | 598.2 | --- | --- | 360.5 | 235.4 | 131.8 | 53.7[2] | |
| 1950 | 155.8 | 475.2 | --- | --- | 292.4 | 180.2 | 113.9 | 46.9[2] | |
| BLACK | | | | | | | | | |
| Race of mother | | | | | | | | | |
| Reported/Inferred3 | | | | | | | | | |
| 1993 | 73.7 | 548.9 | * | * | 201.1 | 133.0 | 79.6 | 32.6 | 6.3 |
| 1992 | 76.8 | 511.0 | * | * | 222.3 | 132.8 | 79.2 | 31.8 | 6.0 |
| 1991 | 77.4 | 505.7 | * | * | 219.8 | 132.4 | 76.0 | 30.9 | 5.8 |
| 1990 | 79.7 | 486.8 | * | * | 225.2 | 130.6 | 75.4 | 30.1 | 6.1 |
| 1989 | 78.6 | 499.2 | * | * | 208.8 | 130.1 | 71.5 | 28.0 | 6.1 |
| 1988 | 76.4 | 490.2 | * | * | 207.8 | 122.2 | 68.0 | 26.8 | 5.6 |
| 1987 | 76.1 | 427.7 | * | * | 199.4 | 120.1 | 66.9 | 26.1 | 5.2 |
| 1986 | 78.6 | 489.5 | * | * | 206.7 | 122.6 | 67.2 | 26.1 | 5.3 |
| 1985 | 81.8 | 556.5 | * | * | 212.8 | 127.9 | 66.4 | 26.5 | 5.2 |
| 1984[4] | 83.2 | 470.8 | * | * | 219.0 | 123.9 | 67.5 | 26.0 | 5.4 |
| 1983[4] | 82.7 | 446.6 | * | * | 211.7 | 118.6 | 65.8 | 25.7 | 5.6 |
| 1982[4] | 85.4 | 382.5 | * | * | 210.6 | 119.1 | 67.1 | 25.5 | 5.6 |
| 1981[4] | 85.7 | 357.8 | * | * | 203.2 | 119.7 | 65.0 | 24.9 | 5.7 |
| 1980[4] | 89.2 | 340.4 | * | * | 205.7 | 122.3 | 67.0 | 25.7 | 6.1 |
| Race of child | | | | | | | | | |
| Estimated5 | | | | | | | | | |
| 1980[4] | 94.0 | 332.3 | * | * | 216.9 | 130.1 | 71.4 | 27.5 | 6.3 |
| 1979[4] | 95.6 | 315.3 | * | * | 222.8 | 131.9 | 69.9 | 27.6 | 6.8 |
| 1978[4] | 94.0 | 353.4 | * | * | 212.3 | 124.4 | 65.9 | 27.5 | 6.5 |
| 1977[4] | 94.7 | 337.3 | * | * | 207.7 | 125.1 | 63.1 | 28.8 | 7.3 |
| 1976[4] | 90.4 | 313.0 | * | * | 191.5 | 115.5 | 56.9 | 27.5 | 7.2 |
| 1975[4] | 91.8 | 318.8 | * | * | 188.7 | 117.3 | 54.3 | 27.6 | 8.3 |
| 1974[4] | 93.8 | 363.0 | * | * | 189.5 | 113.0 | 54.9 | 27.8 | 8.4 |
| 1973[4] | 98.2 | 453.7 | * | * | 191.8 | 113.0 | 58.3 | 29.8 | 9.9 |
| 1972[4] | 107.6 | 490.7 | * | * | 209.5 | 122.9 | 66.2 | 34.3 | 11.2 |
| 1971[6] | 121.5 | 511.7 | * | * | 238.9 | 139.2 | 76.5 | 40.9 | 13.2 |
| 1970[6] | 130.3 | 533.3 | * | * | 263.2 | 148.3 | 81.0 | 44.6 | 14.2 |
| 1969[6] | 129.1 | 514.6 | * | * | 260.2 | 143.5 | 81.3 | 46.4 | 14.6 |

* Figure does not meet standards of reliability or precision.

1 Rates are computed by relating total births to married women, regardless of age of mother, to married women aged 15-44 years.

2 Rates are computed by relating births to married women aged 40 years and over to married women 40-44 years. Rates by race for years prior to 1969 are computed by relating births to married women aged 35 years and over to married women aged 35-44 years.

3 Data for states in which marital status was not reported have been inferred from other items on the birth certificate and included with data from the reporting states.

4 Based on 100 percent of births in selected states and on a 50-percent sample of births in all other states.

5 Births to married women are estimated for the United States from data for registration areas in which marital status of mother was reported.

6 Based on a 50-percent sample of births.

7 Based on a 20- to 50-percent sample of births.

Source: National Center for Heatlh Statistics. Vital Statistics of the United States, 1993, Volume I, Natality. Washington, DC: U.S. Government Printing Office. In preparation.

## Table IV - 1: Frequency of Sex in the Past Year for Men and Women, by Age and Marital Status

| | Frequency of Sex in Past Year (%) | | | | | |
|---|---|---|---|---|---|---|
| | Not at All | A Few Times per Year | A Few Times per Month | Two to Three Times a Week | Four or More Times a Week | Total N |
| *Men* | 9.8 | 17.6 | 35.5 | 29.5 | 7.7 | 1,330 |
| Total Population | | | | | | |
| 18-24 | 14.7 | 21.1 | 23.9 | 28.0 | 12.4 | 218 |
| 25-29 | 6.7 | 14.8 | 31.0 | 36.2 | 11.4 | 210 |
| 30-34 | 9.7 | 16.7 | 34.7 | 31.5 | 7.4 | 216 |
| 35-39 | 6.8 | 12.6 | 40.0 | 35.3 | 5.3 | 190 |
| 40-44 | 6.7 | 16.9 | 44.4 | 26.4 | 5.6 | 178 |
| 45-49 | 12.7 | 19.8 | 33.3 | 27.8 | 6.3 | 126 |
| 50-54 | 7.8 | 19.6 | 45.1 | 22.5 | 4.9 | 102 |
| 55-59 | 15.7 | 24.7 | 41.6 | 16.9 | 1.1 | 89 |
| Marital Status: | | | | | | |
| Nev. marr., not coh. | 22.0 | 26.2 | 25.4 | 18.8 | 7.6 | 382 |
| Nev. marr., coh. | 0.0 | 8.5 | 35.6 | 37.3 | 18.6 | 59 |
| Married | 1.3 | 12.8 | 42.5 | 36.1 | 7.3 | 687 |
| Div./sep./wid., not coh. | 23.8 | 22.5 | 28.5 | 20.5 | 4.6 | 151 |
| Div./sep./wid.,coh. | 0.0 | 8.3 | 36.1 | 44.4 | 11.1 | 36 |
| *Women* | 13.6 | 16.1 | 37.2 | 26.3 | 6.7 | 1,664 |
| Total Population | | | | | | |
| 18-24 | 11.2 | 16.1 | 31.5 | 28.8 | 12.4 | 267 |
| 25-29 | 4.5 | 10.3 | 38.1 | 36.8 | 10.3 | 223 |
| 30-34 | 8.1 | 16.6 | 34.6 | 32.9 | 7.8 | 283 |
| 35-39 | 10.8 | 15.7 | 37.8 | 32.5 | 3.2 | 249 |
| 40-44 | 14.6 | 15.5 | 46.1 | 16.9 | 6.8 | 219 |
| 45-49 | 16.1 | 16.1 | 41.0 | 23.6 | 3.1 | 161 |
| 50-54 | 19.3 | 20.7 | 40.0 | 17.8 | 2.2 | 135 |
| 55-59 | 40.8 | 22.4 | 29.6 | 4.8 | 2.4 | 125 |
| Marital Status: | | | | | | |
| Nev. marr., not coh. | 30.2 | 23.5 | 26.0 | 13.3 | 7.0 | 315 |
| Nev. marr., coh. | 1.4 | 6.9 | 31.9 | 43.1 | 16.7 | 72 |
| Married | 3.0 | 11.9 | 46.5 | 31.9 | 6.6 | 905 |
| Div./sep./wid., not coh. | 34.3 | 23.2 | 21.9 | 16.8 | 3.7 | 297 |
| Div./sep./wid.,coh. | 0.0 | 9.4 | 39.6 | 39.6 | 11.3 | 53 |

Source: Laumann, E.O. et al. 1994. The Social Organization of Sexuality. Chicago: The University of Chicago Press.

Table IV - 2: Number of ever married women 15-44 years of age and percent distribution by timing of marriage relative to first sexual intercourse, according to race, Hispanic origin, and birth cohort: United States, 1988

| Race, Hispanic origin, and Birth Cohort | Ever Married Women | Total | marr. before or same month as 1st intercourse | 5 months or less | 6-11 months | 12-35 months | 36-59 months | 60 months or more |
|---|---|---|---|---|---|---|---|---|
| Total | # in thousands | Percent distribution | | | | | | |
| All cohorts | 36,841 | 100.0 | 25.0 | 8.5 | 8.0 | 24.1 | 14.8 | 19.6 |
| 1964-73 | 3,971 | 100.0 | 16.5 | 5.9 | 13.6 | 29.9 | 21.0 | 13.0 |
| 1954-63 | 16,888 | 100.0 | 17.8 | 7.2 | 6.9 | 24.9 | 17.9 | 25.3 |
| 1944-53 | 15,982 | 100.0 | 34.7 | 10.5 | 7.8 | 21.7 | 10.0 | 15.3 |
| White (Non-Hisp) | | | | | | | | |
| All cohorts | 28,579 | 100.0 | 24.5 | 8.2 | 8.2 | 25.5 | 14.7 | 18.8 |
| 1964-73 | 3,084 | 100.0 | 14.5 | 4.7 | 14.2 | 32.2 | 20.9 | 13.5 |
| 1954-63 | 12,995 | 100.0 | 15.9 | 6.8 | 7.3 | 26.9 | 18.3 | 24.9 |
| 1944-53 | 12,500 | 100.0 | 36.0 | 10.6 | 7.7 | 22.3 | 9.6 | 13.9 |
| Black (Non-Hisp) | | | | | | | | |
| All cohorts | 3,458 | 100.0 | 7.5 | 7.7 | 7.4 | 23.9 | 18.9 | 34.5 |
| 1964-73 | 332 | 100.0 | 6.6 | 7.0 | 2.5 | 38.6 | 27.8 | 17.5 |
| 1954-63 | 1,581 | 100.0 | 5.0 | 3.7 | 6.6 | 24.3 | 18.9 | 41.6 |
| 1944-53 | 1,545 | 100.0 | 10.2 | 12.0 | 9.4 | 20.3 | 17.1 | 30.9 |
| Hispanic Origin | | | | | | | | |
| Hispanic | 3,452 | 100.0 | 39.1 | 13.1 | 6.9 | 15.2 | 10.9 | 14.8 |
| Non-Hispanic | 33,390 | 100.0 | 23.5 | 8.0 | 8.1 | 25.0 | 15.2 | 20.1 |

Source: National Survey of Family Growth, Cycle 4, 1988. National Center for Health Statistics.

**Table IV-3: Number of women 15–44 years of age and percent distribution by current contraceptive status and method, according to marital status: United States, 1982 and 1988**

(Statistics are based on samples of the female population of the conterminous United States. See Technical notes for estimates of sampling variability and definitions of terms. Data for 1988 are preliminary)

| Contraceptive status and method | Never married | | Currently married | | | Widowed, divorced, or separated | | |
|---|---|---|---|---|---|---|---|---|
| | 1988 | 1982 | 1988 | 1982 | 1973 | 1988 | 1982 | 1973 |
| | Number in thousands | | | | | | | |
| All women | 21,058 | 19,164 | 29,147 | 28,231 | 26,646 | 7,695 | 6,704 | 3,601 |
| | Percent distribution | | | | | | | |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sterile | 5.2 | 3.2 | 44.0 | 40.9 | 23.9 | 42.6 | 38.0 | 21.4 |
| Surgically sterile | 4.3 | 2.6 | 42.4 | 38.9 | 22.9 | 40.9 | 36.1 | 20.9 |
| Contraceptively sterile | 3.4 | 1.9 | 36.2 | 29.5 | 16.4 | 31.3 | 23.6 | 12.5 |
| Female | 2.7 | 1.3 | 23.4 | 18.7 | 8.6 | 29.2 | 21.8 | 12.3 |
| Male | 0.7 | 0.6 | 12.9 | 10.8 | 7.8 | 2.1 | *1.9 | *0.1 |
| Noncontraceptively sterile | 0.9 | 0.7 | 6.2 | 9.3 | 6.5 | 9.7 | 12.5 | 8.4 |
| Female | 0.9 | 0.7 | 6.1 | 8.7 | 6.3 | 9.7 | 12.5 | 8.4 |
| Male | 0.0 | 0.0 | *0.0 | 0.6 | 0.2 | 0.0 | *0.0 | *0.0 |
| Nonsurgically sterile | 1.0 | 0.7 | 1.6 | 2.0 | 0.9 | 1.7 | *1.9 | *0.5 |
| Pregnant or post partum | 2.4 | 2.5 | 7.1 | 7.2 | 7.3 | 2.5 | 2.6 | 2.9 |
| Seeking pregnancy | 1.3 | 1.2 | 6.0 | 6.7 | 7.0 | 2.0 | 2.1 | *0.0 |
| Other nonuser[1] | 52.5 | 59.7 | 4.8 | 5.0 | 8.7 | 26.6 | 25.6 | 45.3 |
| Never had intercourse | 31.5 | 38.4 | – | – | – | – | – | – |
| No intercourse in last 3 months | 9.4 | 11.2 | *0.3 | *0.2 | --- | 19.5 | 15.1 | --- |
| Intercourse in last 3 months | 9.0 | 10.1 | 4.5 | 4.8 | --- | 7.1 | 10.4 | --- |
| Nonsurgical contraceptors | 38.5 | 33.3 | 38.1 | 40.1 | 53.2 | 26.3 | 31.8 | 30.3 |
| Pill | 24.7 | 18.7 | 15.1 | 13.4 | 25.1 | 14.5 | 15.8 | 18.1 |
| IUD | 0.6 | 1.9 | 1.5 | 4.8 | 6.7 | 2.1 | 6.4 | 7.2 |
| Diaphragm | 2.1 | 4.7 | 4.6 | 4.5 | 2.4 | 3.0 | 3.7 | 1.3 |
| Condom | 8.2 | 4.1 | 10.6 | 9.8 | 9.4 | 3.4 | *0.8 | *0.9 |
| Foam | 0.2 | 0.4 | 1.0 | 2.0 | 3.5 | 0.5 | *1.1 | *0.7 |
| Periodic abstinence | 0.6 | 0.9 | 2.1 | 3.2 | 2.8 | 1.1 | *1.4 | *0.4 |
| Withdrawal, douche, and other methods | 2.1 | 2.6 | 3.2 | 2.3 | 3.4 | 1.7 | 2.7 | 1.7 |

---

[1] Includes women who have had intercourse only once, not shown separately.

Source: Mosher, W.D. and W.F. Pratt. 1990. Contraceptive use in the United States, 1973-88. Advance data from vital and health statistics; no 182. Hyattsville, MD: National Center for Health Statistics.

## Table IV-4. Estimated pregnancy, live birth, and induced abortion rates by marital status and race: United States, 1980, 1990, and 1991

[Rates are births per 1,000 women aged 15-44 years in specified group]

| *Marital status and measure* | *All races* | | | *White* | | | *All other* | | |
|---|---|---|---|---|---|---|---|---|---|
| | *1980* | *1990* | *1991* | *1980* | *1990* | *1991* | *1980* | *1990* | *1991* |
| Married | | | | | | | | | |
| All pregnancies1 | 126.9 | 121.9 | 117.6 | 124.4 | 120.7 | 116.1 | 145.3 | 129.7 | 127.6 |
| Live birth | 97.0 | 93.2 | 89.9 | 97.5 | 94.1 | 90.6 | 93.5 | 87.4 | 85.6 |
| Induced abortion | 10.5 | 8.8 | 8.4 | 8.6 | 7.1 | 6.6 | 24.7 | 20.4 | 20.6 |
| Unmarried | | | | | | | | | |
| All pregnancies1 | 90.8 | 103.6 | 103.3 | 68.9 | 81.0 | 80.9 | 179.7 | 177.4 | 174.3 |
| Live birth | 29.4 | 43.8 | 45.2 | 18.1 | 32.9 | 34.6 | 75.2 | 79.7 | 78.8 |
| Induced abortion | 54.4 | 49.8 | 47.8 | 47.4 | 41.3 | 39.1 | 82.7 | 77.7 | 75.8 |

1 Includes pregnancies ending in fetal loss, not shown separately.

Source: Ventura SJ, Taffel SM, Mosher WD, et al. 1995. Trends in Pregnancies and Pregnancy Rates: Estimates for the United States, 1980-92. Monthly Vital Statistics Report, Vol. 43, No. 11, Supplement. Hyattsville, Maryland: National Center for Health Statistics.

## Table IV - 5: Estimated Proportions of Pregnancies (Excluding Miscarriages) by Outcome and Intention, Percentage of Pregnancies Unintended, and Percentage of Unintended Pregnancies Ending in Abortion, 1987, by Marital Status, Age at Outcome, and Poverty Status at Interview

| | All Pregnancies (miscarriages excluded) | | | | | |
|---|---|---|---|---|---|---|
| Demographic Characteristics | Total Pregnancies | Intended Pregnancies Ending in Births | Unintended Pregnancies Ending in Births | Abortions | Percentage of Pregnancies Unintended | Percentage of Unintended Pregnancies Ending in Abortion |
| Total | 100.1 | 42.8 | 28.4 | 28.9 | 57.3 | 50.4 |
| Marital Status | | | | | | |
| Currently married | 100.0 | 59.9 | 29.7 | 10.4 | 40.1 | 25.9 |
| Formerly married | 100.0 | 31.5 | 32.4 | 36.1 | 68.5 | 52.7 |
| Never married | 100.0 | 11.8 | 22.0 | 66.2 | 88.2 | 75.1 |
| Age | | | | | | |
| 15-19 | 100.0 | 18.3 | 40.0 | 41.7 | 81.7 | 51.0 |
| 20-24 | 100.0 | 39.4 | 29.7 | 30.9 | 60.6 | 51.0 |
| 25-29 | 100.0 | 54.8 | 23.8 | 21.4 | 45.2 | 47.3 |
| 30-34 | 100.0 | 57.9 | 21.0 | 21.1 | 42.1 | 50.1 |
| 35-39 | 100.0 | 44.1 | 25.1 | 39.7 | 55.9 | 55.1 |
| 40-44 | 100.0 | 23.1 | 31.3 | 45.6 | 76.9 | 59.3 |
| Poverty Status | | | | | | |
| <100% | 100.0 | 24.6 | 35.6 | 39.8 | 75.4 | 52.8 |
| 100-199% | 100.0 | 36.0 | 26.8 | 37.2 | 64.0 | 58.1 |
| >199% | 100.0 | 55.0 | 25.7 | 19.3 | 45.0 | 42.9 |

Source: Forrest, J.D. 1994. Epidemiology of unintended pregnancy and contraceptive use. American Journal of Obstetrics and Gynecology 170: 1485-1488.

## Table IV - 6: Number of Women Who Had an Out-of-Wedlock Pregnancy that Resulted in a First Birth and the Percentage Who Married Before the Birth of the Child: 1960-64 to 1985-89

(Numbers in thousands)

| Race and period of first birth* | Total, 15-34 years | | Age at first birth | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 15 to 17 years | | 18 and 19 years | | 20 to 24 years | | 25 to 34 years | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| RACE | | | | | | | | | | |
| All Races | | | | | | | | | | |
| 1985 to 1989 | 3,039 | 26.6 | 617 | 12.2 | 852 | 23.8 | 1,106 | 34.9 | 463 | 31.2 |
| 1980 to 1984 | 2,849 | 31.3 | 666 | 20.6 | 852 | 34.1 | 1,009 | 34.8 | 322 | 34.5 |
| 1975 to 1979 | 2,456 | 33.2 | 720 | 28.1 | 721 | 36.7 | 791 | 35.0 | 225 | 32.5 |
| 1970 to 1974 | 2,294 | 44.9 | 691 | 36.4 | 714 | 52.4 | 741 | 46.5 | 148 | 40.4 |
| 1965 to 1969 | 1,768 | 52.0 | 411 | 41.2 | 610 | 59.5 | 625 | 56.0 | 122 | 30.6 |
| 1960 to 1964 | 1,468 | 52.2 | 430 | 41.4 | 447 | 56.5 | 469 | 58.3 | 121 | 41.4 |
| White | | | | | | | | | | |
| 1985 to 1989 | 2,077 | 33.5 | 353 | 18.5 | 591 | 30.4 | 824 | 40.5 | 309 | 38.0 |
| 1980 to 1984 | 1,825 | 41.6 | 368 | 32.9 | 567 | 43.6 | 685 | 43.0 | 205 | 46.8 |
| 1975 to 1979 | 1,569 | 43.3 | 417 | 42.9 | 474 | 46.0 | 516 | 44.8 | 162 | 31.9 |
| 1970 to 1974 | 1,639 | 54.2 | 449 | 49.4 | 524 | 60.8 | 538 | 54.8 | 129 | 41.8 |
| 1965 to 1969 | 1,236 | 61.4 | 243 | 58.5 | 443 | 69.0 | 469 | 60.7 | 81 | 32.4 |
| 1960 to 1964 | 1,028 | 60.9 | 286 | 53.9 | 322 | 66.8 | 339 | 65.9 | 80 | 41.6 |
| Black | | | | | | | | | | |
| 1985 to 1989 | 840 | 7.7 | 234 | | 229 | 6.5 | 244 | 15.3 | 133 | 9.3 |
| 1980 to 1984 | 926 | 11.6 | 280 | 5.1 | 263 | 13.4 | 297 | 17.2 | 87 | 8.4 |
| 1975 to 1979 | 818 | 12.9 | 287 | 6.7 | 233 | 18.2 | 247 | 12.6 | 50 | (B) |
| 1970 to 1974 | 593 | 18.2 | 236 | 11.8 | 172 | 27.6 | 171 | 17.3 | 13 | (B) |
| 1965 to 1969 | 474 | 28.0 | 162 | 16.3 | 150 | 33.7 | 132 | 38.0 | 30 | (B) |
| 1960 to 1964 | 389 | 31.0 | 135 | 27.0 | 106 | 30.1 | 120 | 36.7 | 28 | (B) |
| Asian and Pacific Islander | | | | | | | | | | |
| 1960-89 | 278 | 47.2 | (B) | (B) | (B) | (B) | (B) | (B) | (B) | (B) |

## Number of Women Who Had an Out-of-Wedlock Pregnancy that Resulted in a First Birth and the Percentage Who Married Before the Birth of the Child: 1960-64 to 1985-89 - Con.

| Race and period of first birth* | Total, 15-34 years | | Age at first birth | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 15 to 17 years | | 18 and 19 years | | 20 to 24 years | | 25 to 34 years | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| HISPANIC ORIGIN | | | | | | | | | | |
| Hispanic** | | | | | | | | | | |
| 1985 to 1989 | 432 | 23.4 | 65 | 11.3 | 118 | 20.0 | 203 | 27.0 | 46 | (B) |
| 1980 to 1984 | 325 | 25.4 | 86 | 21.8 | 88 | 25.6 | 118 | 25.1 | 32 | (B) |
| 1975 to 1979 | 350 | 28.2 | 89 | 28.7 | 109 | 39.0 | 109 | 16.4 | 44 | (B) |
| 1970 to 1974 | 253 | 33.5 | 63 | 26.5 | 67 | 54.9 | 77 | 34.0 | 45 | (B) |
| 1965 to 1969 | 144 | 45.2 | 34 | 49.8 | 40 | 39.5 | 56 | 55.1 | 13 | (B) |
| 1960 to 1964 | 114 | 33.1 | 32 | 30.5 | 36 | 41.0 | 33 | 30.3 | 13 | (B) |
| Not Hispanic | | | | | | | | | | |
| 1985 to 1989 | 2,607 | 27.2 | 552 | 12.3 | 735 | 24.4 | 903 | 36.7 | 416 | 31.0 |
| 1980 to 1984 | 2,524 | 32.0 | 580 | 20.4 | 764 | 35.1 | 891 | 36.1 | 290 | 34.4 |
| 1975 to 1979 | 2,106 | 34.1 | 631 | 28.0 | 612 | 36.3 | 682 | 37.9 | 180 | 33.2 |
| 1970 to 1974 | 2,041 | 46.3 | 628 | 37.4 | 647 | 52.2 | 663 | 47.9 | 103 | 53.5 |
| 1965 to 1969 | 1,624 | 52.6 | 377 | 40.4 | 569 | 60.9 | 569 | 56.1 | 110 | 33.4 |
| 1960 to 1964 | 1,354 | 53.8 | 399 | 45.4 | 411 | 57.8 | 436 | 60.4 | 108 | 43.4 |

(B) Base too small to show derived statistic
- Represents zero or rounds to zero
* Periods are for complete calendar years.
** Persons of Hispanic origin may be of any race.

Bachu, Amara. 1991. Fertility of American Women: June 1990. Current Population Reports, Series P-20, No. 454. U.S Bureau of the Census, Department of Commerce.

**Table V-1. Number and percent distribution of births to unmarried women by live-birth order and first-birth rate for births to unmarried women, by age and race of mother: United States, 1993**

| *Age of mother and race* | *Number of births* |  |  | *Percent distribution*[2] |  |  | *First birth rate*[3] |
|---|---|---|---|---|---|---|---|
|  |  | *Live-birth order* |  |  | *Live-birth order* |  |  |
|  | *All births*[1] | *First* | *2nd and higher* | *All births* | *First* | *2nd and higher* |  |
| All races[4] | 1,240,172 | 596,599 | 637,410 | 100.0 | 48.4 | 51.7 | 21.9 |
| Under 15 years | 11,467 | 11,095 | 323 | 100.0 | 97.2 | 2.8 | --- |
| 15-19 years | 357,432 | 274,934 | 81,029 | 100.0 | 77.2 | 22.8 | 34.4 |
| 15-17 years | 152,212 | 130,983 | 20,600 | 100.0 | 86.4 | 13.6 | 26.4 |
| 18-19 years | 205,220 | 143,951 | 60,429 | 100.0 | 70.4 | 29.6 | 47.1 |
| 20-24 years | 438,538 | 200,152 | 236,425 | 100.0 | 45.9 | 54.2 | 31.7 |
| 25-29 years | 233,776 | 65,810 | 166,581 | 100.0 | 28.3 | 71.7 | 16.2 |
| 30-34 years | 132,263 | 30,332 | 101,119 | 100.0 | 23.1 | 76.9 | 8.9 |
| 35-39 years | 55,570 | 11,881 | 43,298 | 100.0 | 21.5 | 78.5 | 4.1 |
| 40-44 years | 11,126 | 2,395 | 8,635 | 100.0 | 21.7 | 78.3 | 1.0 |
| White | 742,129 | 390,243 | 348,231 | 100.0 | 52.8 | 47.2 | 19.0 |
| Under 15 years | 4,868 | 4,734 | 109 | 100.0 | 97.8 | 2.3 | --- |
| 15-19 years | 213,080 | 175,102 | 37,098 | 100.0 | 82.5 | 17.5 | 27.7 |
| 15-17 years | 87,032 | 78,418 | 8,250 | 100.0 | 90.5 | 9.5 | 20.0 |
| 18-19 years | 126,048 | 96,684 | 28,848 | 100.0 | 77.0 | 23.0 | 40.4 |
| 20-24 years | 263,538 | 135,431 | 126,943 | 100.0 | 51.6 | 48.4 | 28.0 |
| 25-29 years | 139,905 | 44,007 | 95,095 | 100.0 | 31.6 | 68.4 | 14.8 |
| 30-34 years | 79,136 | 20,520 | 58,147 | 100.0 | 26.1 | 73.9 | 8.4 |
| 35-39 years | 34,283 | 8,596 | 25,444 | 100.0 | 25.3 | 74.8 | 4.1 |
| 40-44 years | 7,319 | 1,853 | 5,395 | 100.0 | 25.6 | 74.4 | 1.0 |
| Black | 452,476 | 185,022 | 265,157 | 100.0 | 41.1 | 58.9 | 34.5 |
| Under 15 years | 6,293 | 6,068 | 201 | 100.0 | 96.8 | 3.2 | --- |
| 15-19 years | 133,031 | 91,049 | 41,430 | 100.0 | 68.7 | 31.3 | 70.4 |
| 15-17 years | 60,412 | 48,455 | 11,709 | 100.0 | 80.5 | 19.5 | 61.9 |
| 18-19 years | 72,619 | 42,594 | 29,721 | 100.0 | 58.9 | 41.1 | 83.4 |
| 20-24 years | 159,598 | 57,550 | 101,311 | 100.0 | 36.2 | 63.8 | 51.5 |
| 25-29 years | 84,604 | 19,003 | 65,073 | 100.0 | 22.6 | 77.4 | 21.4 |
| 30-34 years | 47,330 | 8,326 | 38,693 | 100.0 | 17.7 | 82.3 | 10.1 |
| 35-39 years | 18,526 | 2,622 | 15,782 | 100.0 | 14.3 | 85.8 | 3.7 |
| 40-44 years | 3,094 | 404 | 2,667 | 100.0 | 13.2 | 86.8 | 0.8 |
| Hispanic (5) | 261,586 | 115,279 | 145,014 | 100.0 | 44.3 | 55.7 | 42.2 |
| Under 15 years | 2,358 | 2,279 | 72 | 100.0 | 96.9 | 3.1 | --- |
| 15-19 years | 69,523 | 52,372 | 16,829 | 100.0 | 75.7 | 24.2 | 56.5 |
| 15-17 years | 30,866 | 26,304 | 4,412 | 100.0 | 85.6 | 14.4 | 44.4 |
| 18-19 years | 38,657 | 26,068 | 12,417 | 100.0 | 67.7 | 32.3 | 77.6 |
| 20-24 years | 88,946 | 38,847 | 49,696 | 100.0 | 43.9 | 56.1 | 61.6 |
| 25-39 years | 55,826 | 14,259 | 41,263 | 100.0 | 25.7 | 74.3 | 35.4 |
| 30-34 years | 29,862 | 5,354 | 24,351 | 100.0 | 18.0 | 82.0 | 16.4 |
| 35-39 years | 12,389 | 1,838 | 10,473 | 100.0 | 14.9 | 85.1 | 7.1 |
| 40-44 years | 2,682 | 330 | 2,330 | 100.0 | 12.4 | 87.6 | 1.7 |

(1) Includes live-birth order not stated.

(2) Based only on records for which live-birth order is stated.

(3) First births per 1,000 unmarried women in specified group.

(4) Includes races other than white and black.

(5) Persons of Hispanic origin may be of any race.

Source: Ventura SJ and TJ Mathews. Special tabulation of 1993 birth certificate data. National Center for Health Statistics. 1995.

# Table V-2: Distribution of Women and Average Number of Children Ever Born, by Race, Age, and Marital Status

[Percent distribution. Numbers in thousands. For meaning of symbols, see table of contents]

| Characteristic | Total women | Women by number of children ever born | | | | | | | | Children ever born | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | None | One | Two | Three | Four | Five and six | Seven or more | Total number | Per 1,000 women |
| **ALL RACES** | | | | | | | | | | | |
| **All Marital Classes** | | | | | | | | | | | |
| 15 to 44 years | 58,614 | 100.0 | 41.2 | 18.2 | 23.8 | 11.1 | 3.9 | 1.7 | .2 | 73,315 | 1,251 |
| 15 to 19 years | 8,186 | 100.0 | 92.7 | 5.9 | 1.2 | .2 | - | - | - | 739 | 90 |
| 20 to 24 years | 9,086 | 100.0 | 65.9 | 19.9 | 10.1 | 3.0 | .9 | .2 | - | 4,873 | 536 |
| 25 to 29 years | 10,039 | 100.0 | 41.3 | 24.4 | 21.8 | 8.3 | 2.8 | 1.3 | .1 | 11,163 | 1,112 |
| 30 to 34 years | 11,248 | 100.0 | 26.1 | 21.1 | 31.7 | 14.3 | 4.8 | 1.9 | .2 | 17,716 | 1,575 |
| 35 to 39 years | 10,637 | 100.0 | 18.8 | 18.0 | 34.9 | 18.6 | 6.6 | 2.7 | .4 | 19,882 | 1,869 |
| 40 to 44 years | 9,416 | 100.0 | 15.7 | 17.3 | 36.6 | 19.0 | 7.0 | 3.6 | .8 | 18,942 | 2,012 |
| **Women Ever Married** | | | | | | | | | | | |
| 15 to 44 years | 37,260 | 100.0 | 18.3 | 23.0 | 34.4 | 16.2 | 5.5 | 2.2 | .3 | 65,874 | 1,768 |
| 15 to 19 years | 339 | 100.0 | 43.7 | 46.3 | 9.1 | 1.0 | - | - | - | 228 | 673 |
| 20 to 24 years | 3,064 | 100.0 | 38.2 | 34.3 | 19.8 | 5.6 | 1.7 | .4 | - | 3,046 | 994 |
| 25 to 29 years | 6,780 | 100.0 | 27.5 | 29.8 | 27.6 | 10.6 | 3.2 | 1.1 | .1 | 9,237 | 1,362 |
| 30 to 34 years | 9,050 | 100.0 | 17.0 | 22.6 | 36.9 | 16.3 | 5.3 | 1.8 | .1 | 15,988 | 1,767 |
| 35 to 39 years | 9,337 | 100.0 | 12.4 | 18.7 | 38.3 | 20.5 | 7.0 | 2.8 | .3 | 18,866 | 2,020 |
| 40 to 44 years | 8,690 | 100.0 | 10.8 | 17.8 | 39.1 | 20.3 | 7.5 | 3.7 | .8 | 18,509 | 2,130 |
| **Women Never Married** | | | | | | | | | | | |
| 15 to 44 years | 21,354 | 100.0 | 81.1 | 9.8 | 5.2 | 2.1 | 1.0 | .7 | .1 | 7,440 | 348 |
| 15 to 19 years | 7,847 | 100.0 | 94.8 | 4.2 | .9 | .2 | - | - | - | 511 | 65 |
| 20 to 24 years | 6,023 | 100.0 | 80.0 | 12.6 | 5.2 | 1.6 | .5 | .1 | - | 1,827 | 303 |
| 25 to 29 years | 3,259 | 100.0 | 69.9 | 13.3 | 9.8 | 3.4 | 2.0 | 1.5 | - | 1,926 | 591 |
| 30 to 34 years | 2,199 | 100.0 | 63.5 | 14.8 | 10.3 | 6.4 | 2.4 | 2.2 | .3 | 1,728 | 786 |
| 35 to 39 years | 1,300 | 100.0 | 65.2 | 13.0 | 10.6 | 5.1 | 3.8 | 1.9 | .5 | 1,016 | 782 |
| 40 to 44 years | 726 | 100.0 | 74.5 | 10.6 | 6.9 | 3.4 | 1.5 | 1.9 | 1.3 | 433 | 596 |
| **WHITE** | | | | | | | | | | | |
| **All Marital Classes** | | | | | | | | | | | |
| 15 to 44 years | 48,157 | 100.0 | 42.1 | 17.7 | 24.2 | 10.9 | 3.6 | 1.4 | .1 | 58,488 | 1,215 |
| 15 to 19 years | 6,504 | 100.0 | 93.7 | 5.5 | .7 | .1 | - | - | - | 472 | 73 |
| 20 to 24 years | 7,382 | 100.0 | 69.7 | 18.5 | 9.0 | 2.0 | .6 | .1 | - | 3,360 | 455 |
| 25 to 29 years | 8,216 | 100.0 | 42.8 | 24.6 | 21.6 | 7.8 | 2.3 | .9 | - | 8,659 | 1,054 |
| 30 to 34 years | 9,275 | 100.0 | 26.8 | 21.0 | 32.1 | 14.0 | 4.5 | 1.5 | .1 | 14,291 | 1,541 |
| 35 to 39 years | 8,830 | 100.0 | 19.6 | 17.5 | 35.9 | 18.4 | 6.1 | 2.2 | .2 | 16,060 | 1,819 |
| 40 to 44 years | 7,950 | 100.0 | 16.6 | 16.2 | 37.7 | 19.1 | 6.8 | 3.1 | .5 | 15,647 | 1,968 |
| **Women Ever Married** | | | | | | | | | | | |
| 15 to 44 years | 32,165 | 100.0 | 19.1 | 23.0 | 34.8 | 15.8 | 5.2 | 1.9 | .2 | 55,482 | 1,725 |
| 15 to 19 years | 313 | 100.0 | 44.9 | 47.1 | 7.3 | .7 | - | - | - | 200 | 638 |
| 20 to 24 years | 2,708 | 100.0 | 39.5 | 35.0 | 19.2 | 4.7 | 1.4 | .2 | - | 2,546 | 940 |
| 25 to 29 years | 5,929 | 100.0 | 28.4 | 30.1 | 27.4 | 10.2 | 2.7 | 1.0 | - | 7,827 | 1,320 |
| 30 to 34 years | 7,799 | 100.0 | 17.3 | 22.6 | 37.1 | 16.1 | 5.2 | 1.6 | .1 | 13,650 | 1,750 |
| 35 to 39 years | 7,993 | 100.0 | 13.1 | 18.6 | 39.2 | 20.0 | 6.6 | 2.4 | .2 | 15,753 | 1,971 |
| 40 to 44 years | 7,422 | 100.0 | 11.5 | 17.0 | 40.2 | 20.3 | 7.2 | 3.2 | .6 | 15,507 | 2,089 |
| **Women Never Married** | | | | | | | | | | | |
| 15 to 44 years | 15,993 | 100.0 | 88.4 | 7.1 | 2.8 | .9 | .5 | .3 | - | 3,006 | 188 |
| 15 to 19 years | 6,191 | 100.0 | 96.2 | 3.4 | .4 | .1 | - | - | - | 272 | 44 |
| 20 to 24 years | 4,674 | 100.0 | 87.2 | 8.9 | 3.2 | .5 | .1 | - | - | 814 | 174 |
| 25 to 29 years | 2,287 | 100.0 | 79.9 | 10.1 | 6.5 | 1.6 | 1.3 | .7 | - | 832 | 364 |
| 30 to 34 years | 1,476 | 100.0 | 76.8 | 12.8 | 5.3 | 2.8 | 1.2 | 1.0 | .1 | 641 | 434 |
| 35 to 39 years | 837 | 100.0 | 82.3 | 7.6 | 4.9 | 2.9 | 1.7 | .3 | .3 | 307 | 367 |
| 40 to 44 years | 529 | 100.0 | 87.8 | 5.8 | 2.5 | 1.2 | 1.1 | 1.5 | - | 140 | 265 |

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## Table V-2: **Distribution of Women and Average Number of Children Ever Born, by Race, Age, and Marital Status**—Con.

[Percent distribution. Numbers in thousands. For meaning of symbols, see table of contents]

| Characteristic | Total women | Women by number of children ever born | | | | | | | | Children ever born | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | None | One | Two | Three | Four | Five and six | Seven or more | Total number | Per 1,000 women |
| **BLACK** | | | | | | | | | | | |
| **All Marital Classes** | | | | | | | | | | | |
| 15 to 44 years | 8,017 | 100.0 | 34.4 | 21.5 | 21.4 | 12.8 | 5.6 | 3.5 | .7 | 11,900 | 1,484 |
| 15 to 19 years | 1,313 | 100.0 | 86.9 | 8.8 | 3.4 | .8 | - | .1 | - | 242 | 185 |
| 20 to 24 years | 1,336 | 100.0 | 42.8 | 29.2 | 16.5 | 8.0 | 2.7 | .8 | - | 1,350 | 1,011 |
| 25 to 29 years | 1,422 | 100.0 | 31.1 | 24.6 | 23.7 | 10.9 | 6.1 | 3.5 | .1 | 2,100 | 1,477 |
| 30 to 34 years | 1,493 | 100.0 | 19.8 | 21.7 | 30.2 | 17.5 | 6.2 | 4.1 | .5 | 2,746 | 1,840 |
| 35 to 39 years | 1,345 | 100.0 | 13.8 | 22.3 | 25.9 | 20.8 | 9.9 | 5.8 | 1.5 | 2,932 | 2,180 |
| 40 to 44 years | 1,109 | 100.0 | 11.1 | 22.4 | 28.7 | 19.3 | 9.1 | 7.3 | 2.2 | 2,530 | 2,282 |
| **Women Ever Married** | | | | | | | | | | | |
| 15 to 44 years | 3,585 | 100.0 | 11.1 | 23.3 | 30.2 | 20.3 | 8.8 | 5.2 | 1.0 | 7,686 | 2,144 |
| 15 to 19 years | 16 | (B) | (B) | (B) | (B) | (B) | (B) | (B) | (B) | 16 | (B) |
| 20 to 24 years | 238 | 100.0 | 22.1 | 26.1 | 28.8 | 15.0 | 5.6 | 2.4 | - | 384 | 1,609 |
| 25 to 29 years | 608 | 100.0 | 18.5 | 27.2 | 28.6 | 14.3 | 8.4 | 2.8 | .2 | 1,072 | 1,763 |
| 30 to 34 years | 858 | 100.0 | 11.9 | 22.4 | 35.5 | 19.8 | 6.7 | 3.4 | .2 | 1,707 | 1,990 |
| 35 to 39 years | 934 | 100.0 | 6.8 | 21.7 | 27.3 | 25.5 | 10.6 | 6.3 | 1.7 | 2,255 | 2,416 |
| 40 to 44 years | 930 | 100.0 | 6.7 | 21.8 | 30.3 | 21.1 | 10.3 | 8.1 | 1.8 | 2,251 | 2,421 |
| **Women Never Married** | | | | | | | | | | | |
| 15 to 44 years | 4,432 | 100.0 | 53.3 | 20.1 | 14.3 | 6.7 | 3.0 | 2.2 | .4 | 4,215 | 951 |
| 15 to 19 years | 1,297 | 100.0 | 87.5 | 8.5 | 3.1 | .7 | - | .1 | - | 226 | 174 |
| 20 to 24 years | 1,097 | 100.0 | 47.3 | 29.4 | 14.3 | 6.5 | 2.1 | .4 | - | 966 | 881 |
| 25 to 29 years | 813 | 100.0 | 40.5 | 22.6 | 20.1 | 8.4 | 4.4 | 4.1 | - | 1,028 | 1,264 |
| 30 to 34 years | 634 | 100.0 | 30.6 | 20.7 | 23.0 | 14.4 | 5.5 | 5.0 | .9 | 1,039 | 1,639 |
| 35 to 39 years | 412 | 100.0 | 29.8 | 23.7 | 22.6 | 10.1 | 8.2 | 4.7 | 1.0 | 677 | 1,645 |
| 40 to 44 years | 179 | 100.0 | 33.9 | 25.6 | 20.5 | 9.6 | 3.0 | 3.1 | 4.3 | 278 | 1,555 |
| **HISPANIC**[1] | | | | | | | | | | | |
| **All Marital Classes** | | | | | | | | | | | |
| 15 to 44 years | 5,555 | 100.0 | 34.0 | 19.0 | 22.8 | 13.9 | 6.5 | 3.0 | .8 | 8,570 | 1,543 |
| 15 to 19 years | 922 | 100.0 | 85.5 | 12.4 | 2.1 | - | - | - | - | 153 | 166 |
| 20 to 24 years | 942 | 100.0 | 48.6 | 25.7 | 19.6 | 4.3 | 1.6 | .2 | - | 802 | 851 |
| 25 to 29 years | 1,050 | 100.0 | 26.9 | 26.8 | 27.0 | 12.5 | 4.2 | 2.4 | .2 | 1,568 | 1,494 |
| 30 to 34 years | 1,001 | 100.0 | 16.4 | 19.7 | 31.6 | 20.0 | 7.7 | 3.8 | .8 | 2,001 | 1,999 |
| 35 to 39 years | 956 | 100.0 | 11.5 | 14.6 | 29.7 | 24.4 | 14.0 | 4.6 | 1.1 | 2,254 | 2,357 |
| 40 to 44 years | 683 | 100.0 | 12.7 | 11.7 | 26.2 | 24.5 | 13.1 | 8.5 | 3.4 | 1,793 | 2,624 |
| **Women Ever Married** | | | | | | | | | | | |
| 15 to 44 years | 3,549 | 100.0 | 11.5 | 22.8 | 31.5 | 19.7 | 9.3 | 4.1 | 1.1 | 7,541 | 2,125 |
| 15 to 19 years | 79 | 100.0 | 26.2 | 63.4 | 10.4 | - | - | - | - | 66 | 842 |
| 20 to 24 years | 436 | 100.0 | 22.9 | 37.3 | 29.0 | 7.2 | 3.1 | .4 | - | 574 | 1,317 |
| 25 to 29 years | 768 | 100.0 | 15.9 | 29.4 | 32.0 | 15.1 | 5.1 | 2.3 | .3 | 1,333 | 1,735 |
| 30 to 34 years | 813 | 100.0 | 9.3 | 20.4 | 35.9 | 21.6 | 8.5 | 3.5 | .7 | 1,749 | 2,152 |
| 35 to 39 years | 830 | 100.0 | 5.6 | 15.8 | 32.1 | 25.9 | 14.6 | 5.0 | 1.0 | 2,070 | 2,495 |
| 40 to 44 years | 624 | 100.0 | 6.9 | 11.9 | 28.7 | 26.0 | 14.0 | 8.7 | 3.7 | 1,748 | 2,803 |
| **Women Never Married** | | | | | | | | | | | |
| 15 to 44 years | 2,005 | 100.0 | 73.9 | 12.2 | 7.5 | 3.6 | 1.4 | 1.2 | .2 | 1,029 | 513 |
| 15 to 19 years | 844 | 100.0 | 91.1 | 7.7 | 1.3 | - | - | - | - | 86 | 102 |
| 20 to 24 years | 506 | 100.0 | 70.8 | 15.6 | 11.5 | 1.8 | .2 | - | - | 228 | 450 |
| 25 to 29 years | 281 | 100.0 | 56.8 | 19.9 | 13.5 | 5.3 | 1.8 | 2.7 | - | 235 | 834 |
| 30 to 34 years | 188 | 100.0 | 47.4 | 16.5 | 13.0 | 12.7 | 4.0 | 5.2 | 1.1 | 252 | 1,340 |
| 35 to 39 years | 126 | 100.0 | 49.7 | 7.1 | 14.3 | 14.8 | 10.3 | 2.1 | 1.7 | 184 | 1,453 |
| 40 to 44 years | 50 | (B) | (B) | (B) | (B) | (B) | (B) | (B) | (B) | 45 | (B) |

[1] Persons of Hispanic origin may be of any race.

Source: Bachu, Amara. 1993. Fertility of American Women: June 1992. *Current Population Reports*, Series P-20, No. 470. U.S Bureau of the Census, Department of Commerce.

## Appendix B: Observed and Standardized Nonmarital Fertility Ratios

The following two tables provide observed and standardized nonmarital fertility (birth) ratios for black and white women over the period 1960-1992. Standardized ratios were calculated using a method developed by Das Gupta (1993) as part of a study to measure the importance of four factors influencing trends in nonmarital fertility ratios. The four factors considered were nonmarital birth rates, marital birth rates, the percent unmarried at each age, and age distribution. A full description of the method and the findings of this study are provided in a separate paper (Smith, Morgan, and Koropeckyj-Cox, 1995).

Tables 1 and 2 present the observed nonmarital fertility ratios for each of the years 1960-92, and four sets of standardized ratios which estimate what the nonmarital fertility ratios would have been if the designated factor were allowed to change over time but other factors were not. The ratios are calculated in a way that allows a straightforward interpretation of the effect of any factor over any interval of time. For example:

> The nonmarital fertility ratio among black women increased from .3504 in 1970 to .5622 in 1980 (see column 2 of Table 1), an increase of .2118.
>
> The *effect* on the nonmarital fertility ratio of changes in any of the four factors during this period is calculated as the difference between the standardized ratios for that factor (in columns 3-6) for 1980 and 1970:
>
> > Effect of changes in age distribution: .4761 - .4907 = -.0146
> > Effect of changes in the percent unmarried: .5451 - .3498 = .1953.
> > Effect of changes in nonmarital fertility rate: .4457 - .4862 = -.0405
> > Effect of changes in marital fertility rate: .5149 - .4432 = .0717.
>
> Notice that the sum of these effects (-.0146 +.1953 -.0405 +.0717 = .2119) is essentially identical to the difference between the two unadjusted or observed ratios, .2118. These calculations tell us that the primary factor pushing the nonmarital fertility ratio upward for black women between 1970 and 1980 was changes in the percent unmarried, that declines in marital fertility rates also led to an increase in the nonmarital fertility ratio, and that both changes in age distribution and declines in nonmarital birth rates were acting to push the nonmarital fertility ratio downward during the period.

Further examples are given in the paper by Smith, Morgan, and Koropeckyj-Cox cited above.

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**Table 1. Nonmarital Fertility Ratios for Blacks, 1960-1992: Observed and Standardized**

| Year | Nonmarital Fertility Ratio | Nonmarital Fertility Ratios, Standardized for All Factors Save: | | | |
|---|---|---|---|---|---|
| | | Age Distribution | Percent Married | Nonmarital Fertility Rates | Marital Fertility Rates |
| 1960 | 0.2420 | 0.4654 | 0.3013 | 0.5191 | 0.3757 |
| 1961 | 0.2302 | 0.4660 | 0.2844 | 0.5205 | 0.3788 |
| 1962 | 0.2482 | 0.4688 | 0.2977 | 0.5146 | 0.3865 |
| 1963 | 0.2590 | 0.4717 | 0.2986 | 0.5134 | 0.3947 |
| 1964 | 0.2521 | 0.4749 | 0.2828 | 0.5107 | 0.4032 |
| 1965 | 0.2844 | 0.4785 | 0.2972 | 0.5100 | 0.4183 |
| 1966 | 0.2997 | 0.4823 | 0.3068 | 0.4969 | 0.4333 |
| 1967 | 0.2996 | 0.4838 | 0.3040 | 0.4837 | 0.4476 |
| 1968 | 0.3420 | 0.4882 | 0.3443 | 0.4769 | 0.4521 |
| 1969 | 0.3525 | 0.4897 | 0.3615 | 0.4747 | 0.4461 |
| 1970 | 0.3504 | 0.4907 | 0.3498 | 0.4862 | 0.4432 |
| 1971 | 0.4175 | 0.4916 | 0.3987 | 0.4866 | 0.4601 |
| 1972 | 0.4318 | 0.4923 | 0.3954 | 0.4746 | 0.4891 |
| 1973 | 0.4497 | 0.4913 | 0.4012 | 0.4653 | 0.5113 |
| 1974 | 0.4631 | 0.4919 | 0.4099 | 0.4563 | 0.5245 |
| 1975 | 0.4815 | 0.4905 | 0.4321 | 0.4510 | 0.5274 |
| 1976 | 0.5055 | 0.4892 | 0.4649 | 0.4442 | 0.5267 |
| 1977 | 0.5065 | 0.4873 | 0.4843 | 0.4480 | 0.5064 |
| 1978 | 0.5471 | 0.4850 | 0.5337 | 0.4440 | 0.5038 |
| 1979 | 0.5476 | 0.4824 | 0.5397 | 0.4498 | 0.4951 |
| 1980 | 0.5622 | 0.4761 | 0.5451 | 0.4457 | 0.5149 |
| 1981 | 0.5626 | 0.4708 | 0.5584 | 0.4414 | 0.5115 |
| 1982 | 0.5745 | 0.4665 | 0.5822 | 0.4396 | 0.5056 |
| 1983 | 0.5884 | 0.4639 | 0.6046 | 0.4367 | 0.5027 |
| 1984 | 0.6056 | 0.4592 | 0.6301 | 0.4371 | 0.4986 |
| 1985 | 0.6247 | 0.4580 | 0.6503 | 0.4444 | 0.4915 |
| 1986 | 0.6107 | 0.4549 | 0.6240 | 0.4517 | 0.4995 |
| 1987 | 0.6310 | 0.4525 | 0.6270 | 0.4640 | 0.5070 |
| 1988 | 0.6418 | 0.4522 | 0.6333 | 0.4772 | 0.4986 |
| 1989 | 0.6568 | 0.4486 | 0.6453 | 0.4925 | 0.4899 |
| 1990 | 0.6538 | 0.4479 | 0.6481 | 0.4962 | 0.4811 |
| 1991 | 0.6825 | 0.4463 | 0.6785 | 0.4969 | 0.4803 |
| 1992 | 0.6857 | 0.4461 | 0.6909 | 0.4913 | 0.4768 |

## Table 2. Nonmarital Fertility Ratios for Whites, 1960-1992: Observed and Standardized

| Year | Nonmarital Fertility Ratio | Nonmarital Fertility Ratios, Standardized for All Factors Save: | | | |
|---|---|---|---|---|---|
| | | Age Distribution | Percent Married | Nonmarital Fertility Rates | Marital Fertility Rates |
| 1960 | 0.0226 | 0.0967 | 0.0660 | 0.0673 | 0.0740 |
| 1961 | 0.0257 | 0.0972 | 0.0667 | 0.0697 | 0.0736 |
| 1962 | 0.0261 | 0.0988 | 0.0651 | 0.0686 | 0.0753 |
| 1963 | 0.0300 | 0.0995 | 0.0648 | 0.0708 | 0.0764 |
| 1964 | 0.0338 | 0.1005 | 0.0646 | 0.0726 | 0.0776 |
| 1965 | 0.0396 | 0.1015 | 0.0635 | 0.0738 | 0.0824 |
| 1966 | 0.0430 | 0.1026 | 0.0615 | 0.0744 | 0.0861 |
| 1967 | 0.0479 | 0.1024 | 0.0633 | 0.0745 | 0.0892 |
| 1968 | 0.0543 | 0.1030 | 0.0664 | 0.0759 | 0.0905 |
| 1969 | 0.0534 | 0.1023 | 0.0661 | 0.0766 | 0.0900 |
| 1970 | 0.0556 | 0.1024 | 0.0673 | 0.0776 | 0.0898 |
| 1971 | 0.0560 | 0.1025 | 0.0696 | 0.0701 | 0.0954 |
| 1972 | 0.0598 | 0.1024 | 0.0694 | 0.0653 | 0.1043 |
| 1973 | 0.0620 | 0.1020 | 0.0696 | 0.0629 | 0.1090 |
| 1974 | 0.0649 | 0.1016 | 0.0736 | 0.0615 | 0.1098 |
| 1975 | 0.0727 | 0.1013 | 0.0767 | 0.0641 | 0.1122 |
| 1976 | 0.0759 | 0.1006 | 0.0799 | 0.0644 | 0.1124 |
| 1977 | 0.0810 | 0.1001 | 0.0849 | 0.0684 | 0.1091 |
| 1978 | 0.0876 | 0.0995 | 0.0907 | 0.0696 | 0.1093 |
| 1979 | 0.0947 | 0.0987 | 0.0958 | 0.0758 | 0.1060 |
| 1980 | 0.1107 | 0.0969 | 0.0995 | 0.0920 | 0.1039 |
| 1981 | 0.1181 | 0.0949 | 0.1056 | 0.0950 | 0.1041 |
| 1982 | 0.1212 | 0.0933 | 0.1095 | 0.0986 | 0.1015 |
| 1983 | 0.1304 | 0.0917 | 0.1161 | 0.1019 | 0.1023 |
| 1984 | 0.1350 | 0.0901 | 0.1191 | 0.1065 | 0.1009 |
| 1985 | 0.1456 | 0.0888 | 0.1229 | 0.1165 | 0.0990 |
| 1986 | 0.1569 | 0.0875 | 0.1273 | 0.1242 | 0.0995 |
| 1987 | 0.1681 | 0.0860 | 0.1338 | 0.1326 | 0.0972 |
| 1988 | 0.1791 | 0.0846 | 0.1389 | 0.1433 | 0.0939 |
| 1989 | 0.1907 | 0.0828 | 0.1425 | 0.1569 | 0.0901 |
| 1990 | 0.2005 | 0.0815 | 0.1449 | 0.1695 | 0.0861 |
| 1991 | 0.2152 | 0.0799 | 0.1496 | 0.1794 | 0.0879 |
| 1992 | 0.2232 | 0.0794 | 0.1553 | 0.1831 | 0.0870 |

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# EXPERT PAPERS

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# The Retreat from Marriage and the Rise in Nonmarital Fertility

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## Introduction

Public policy discussions about the causes and consequences of nonmarital childbearing are incomplete without some reference to the current "retreat from marriage" in America. Slowing marriage rates, rising age-at-marriage, high divorce rates, declining remarriage rates, and increasing cohabitation are responsible for the growing proportion of unmarried women of reproductive age (Ventura, Bachrach and Kaye, this volume). Indeed, 46 percent of women aged 15-44 were unmarried in 1993; another 4 percent were living apart from their husbands (U.S. Bureau of the Census 1994). The increasing percentage of young women "at risk" of a nonmarital birth by virtue of being single has contributed to the growing proportion of all births occurring outside of marriage (i.e., the nonmarital fertility ratio). This trend is even more pronounced due to continuing low fertility rates among married couples. Clearly, an adequate understanding of why nonmarital fertility has increased from 5 percent in 1960 to nearly one-third of all U.S. births today requires some understanding of current U.S. marriage patterns.

The problem is that the research to date is often ambiguous about causal linkages between changing patterns of marriage and unmarried childbearing. Simple explanations that emphasize changing proportions of unmarried women and married women are insufficient. They cannot explain the fact that fertility rates among unmarried women also are rising.

One common view is that the rise in nonmarital fertility rates is largely a consequence of the lack of marital opportunities or incentives (e.g., shortages of "marriageable" men). Another view is that nonmarital childbearing provides an alternative route to adulthood, especially when other options, such as employment or marriage, are limited (Hayward, Grady, and Billy 1992; Hogan and Kitagawa 1985; South and Lloyd 1992). Alternatively, some view that unmarried childbearing is instead a cause of declining marriage rates (Bennett, Bloom, and Miller 1995). Unmarried mothers presumably are less attractive potential marital partners or, some argue, they have little incentive to marry because they are more likely to be eligible for public assistance if they remain unmarried. Yet another perspective is that declining marriage rates and rising nonmarital fertility are not causally related, but instead are jointly determined by other factors, such as changes in family or religious values or decreasing earnings of males (Bumpass 1990; Cherlin 1992). The rise in the proportion of single individuals and nonmarital fertility provide clear evidence of broader cultural shifts that emphasize the individual over the collectivity (e.g., family, community, nation).

There can be little disagreement that trends in marriage and nonmarital childbearing are inextricably linked and that the relationship is complex. This is especially true for African Americans. Roughly two-thirds of all African American children today are born outside of marriage. The loosening connection between marriage and fertility

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The author benefited from the helpful comments and assistance of Alan Booth, Edith Ericson, Jeff Evans, Gesine Hearn, Wendy Manning, and David Ribar.

among African Americans has gone hand-in-hand with the growth of single-parent families and with rising poverty rates among women and children (Eggebeen and Lichter 1991; Lichter and Eggebeen 1993; McLanahan and Casper 1995). Arguably, the accelerated growth of female-headed families, especially among African Americans, has muted the potential beneficial effects of public policies aimed at reducing racial economic inequality. Not surprisingly, promoting marriage is now increasingly viewed as a potential panacea for the problems of nonmarital childbearing, poverty, and racial inequality in America. But effective family policies require some understanding of why U.S. marriage patterns have changed, especially over the past decade or so.

This paper provides an overview of common explanations of declining marriage rates and divergent racial patterns in America. Four "causes" of declining marriage are evaluated: (a) changing gender roles and the rising economic independence of women; (b) access to welfare and other public assistance; the deterioration in the economic status of young men; and (d) cultural shifts toward individualism and personal fulfillment. Alone, each explanation is inadequate. Together they provide a rather complex, yet still incomplete, picture of the causes of changing marriage patterns in America.

## Four Common Explanations for the Retreat From Marriage

### The Changing Status of Women

The conventional wisdom is that the changing economic status of women, reflected in rising labor force rates and earnings, is mostly responsible for declining marriage and increasing divorce. Simply put, it is commonly argued that American women are less dependent on men and marriage for economic security and are better able than in the past to leave an abusive or emotionally unsatisfying relationship or marriage.

This explanation has intuitive appeal. The decline in marriage and the rise in divorce rates accelerated during a period when young women--especially mothers--entered the work force in record proportions. The lower marriage rates among African American women compared to white women also presumably reflect African American women's historically higher employment and the fact that the ratio of female-to-male earnings has typically been much higher among African Americans than among whites (Bianchi 1995).

The problem with this explanation is that the empirical evidence is limited, at best (Oppenheimer 1994). On the one hand, areal studies consistently show that marriage rates are lowest in communities where female economic opportunities are highest (Schultz 1994; South and Lloyd 1993). Moreover, in a study of the 100 largest U.S. metropolitan areas, McLanahan and Casper found that 70 percent of the 1980-90 decline in marriage among white women was due to increasing female employment and earnings (McLanahan and Casper 1995). But such studies often fail to distinguish cause from effect (for discussion, see Lichter, LeClere, and McLaughlin 1991).

An alternative interpretation is that unmarried women have a greater economic incentive or need for employment. As singlehood rises, for whatever reason, an increasing percentage of women are pushed into the labor force in order to support themselves economically. Indeed, in a national time series study, Mare and Winship (1991) showed that trends in female employment and earnings had little overall effect on marriage trends over 1940-1980 for either African American or white women. Qian and Preston (1993) similarly provided little evidence that changing economic independence of women, if measured by levels of education, were associated with marriage trends over 1972-1987. Instead, they found that declines in marriage were most pronounced among less educated women (see also Ellwood and Crane 1990). Moreover, the growing convergence between African

American and white women's employment and earnings is incompatible--at least theoretically--with evidence of increasing racial divergence in family formation.

Explanations of declining marriage that emphasize women's changing economic status also have limited support in studies that involve surveys of individuals. Several recent studies have shown that women's education, income, and employment increase rather than decrease the likelihood of marriage (Lichter et al. 1992; Oppenheimer 1994). It may still be that a woman's greater economic independence reduces her incentive to marry, but this may be more than offset by the fact that her higher income makes marriage more economically feasible for a man who would not be able to support a family on his salary alone. Highly educated women presumably can both seek and better attract educated or "economically attractive" men. Indeed, attitude studies show that men--both white and African American--now express a strong preference for economically attractive spouses with steady employment (South 1991). The fact that the proportion of spouses with the same educational levels has increased over the past several decades (Mare 1991) also implies that men may be less indifferent than in the past to women's education and economic status.

From a public policy standpoint, the implication of these findings is straightforward. Improving the education and employment options of both men and women may, on balance, stimulate marriage rather than discourage it. On the other hand, while highly educated women are more likely than less educated women to marry men who have a high socio-economic status, they also are more likely to forgo marriage than to marry men who have a low socio-economic status (Lichter, Anderson, and Hayward 1995).

## Welfare and Other Public Assistance

Explanations that emphasize women's economic independence are closely related to those that focus on welfare dependence. One view is that welfare might very well enable women to become economically independent from men and marriage by providing single women with a "surrogate husband (Bennett et al. 1989). Welfare also may reduce the economic imperative for single women resolve a premarital pregnancy by marrying. Indeed, welfare may be preferred over marriage, especially among African American women whose marital prospects are disproportionately drawn from the chronically unemployed or poorly paid (Lichter, et al. 1992). The implication of this hypothesis is that welfare programs, such as AFDC, undermine marriage and encourage nonmarital childbearing.

Several cross-sectional areal studies have shown that welfare availability is significantly associated with marriage prevalence (e.g., percentage currently or ever-married). In a study of 382 labor market areas, Lichter et al. (1991) reported that areas with higher than average benefits among public assistance recipients had lower percentages of women, age 20-29, who were married. McLanahan and Casper (1995) and Schultz (1994), using data from the decennial censuses, found similar results. Marriage was less common in states with more generous welfare provisions. Medicaid benefit levels were also associated with fewer women being currently married (Schultz 1994). The common interpretation is that welfare undermines the traditional family. An alternative view--one not yet satisfactorily addressed in the literature -- is whether less stringent Medicaid eligibility requirements and higher welfare payments are simply state policy responses to growing poverty rates. Thus, changes in family structure may to some extent be a cause of changing welfare policy rather than a consequence of it.

From a policy perspective, these areal studies seem to imply that providing AFDC payments to married couples may reduce or eliminate any unintended disincentives to marriage. Currently all states must now extend cash assistance -- through the AFDC-Unemployed Parents (AFDC-UP) Program -- to needy married couple families in which at least one spouse has had extensive work experience or who has been chronically unemployed. These work history requirements for eligibility for AFDC-UP are often difficult to meet for young couples with little job experience. Indeed, only about 9 percent of all AFDC families are currently headed by married couples.

However, the findings of these cross-sectional areal studies are inconsistent with studies based on time-series or individual-level data. For example, the average maximum AFDC and food stamps were actually falling during this period--from $9,595 in 1970 for a family of four to $7,142 in 1990 (McLanahan and Casper 1995), yet nonmarriage and the nonmarital fertility ratio experienced a large upswing over the same period.
Furthermore, Lichter et al.(1992) found no relationship between the receipt of public assistance and the annual probability of getting married. The results indicated that the lower probability of marriage among African Americans compared to whites could not be attributed to the greater receipt of public assistance among African Americans. Indeed, the percent of African American children on AFDC changed very little or even declined during the 1980s (Ellwood and Crane 1990), yet the nonmarital fertility ratio of African American women continued to rise.

Thus, it is premature to conclude that expanding welfare benefits to married couples will encourage a premaritally pregnant woman to marry her partner rather than bear the child outside of marriage. In fact, previous studies indicate that state AFDC-UP payments are not strongly associated with marriage rates (Moffitt 1990; Schultz 1994). Existing evidence of welfare effects on marriage is mixed. The results seem to depend on whether the data are based on community or aggregated census data, national time-series data, or individual survey data. Additional research is needed to answer the critical question of whether living in a welfare dependent or single-parent family during childhood contributes to subsequent nonmarriage and nonmarital fertility during adulthood (Franklin, Smith, and McMiller 1995; Li and Wojtkiewicz 1994). Here again, the verdict is mixed.

## Men's Deteriorating Employment and Earnings

An increasingly dominant view is that the decline in marriage is a result of the growing labor market problems of men, especially those who are young, poorly educated, and African American. Economic uncertainty provides a weak foundation for marriage and childbearing. Wilson (1987) argued that declining marriage rates among African Americans are largely the result of shortages of "marriageable men"--those with steady employment. This explanation also implies that racial differences in men's employment and earnings may contribute to racial differences in family formation.

Indeed, Mare and Winship (1992) showed that roughly 20 percent of the 1950-80 decline in marriage could be attributed to changing employment patterns among men. Declines in marriage were most apparent among the least educated males. Lichter et al. (1991) concluded that men's economic circumstances were more important in explaining inter-area variation in women's marriage rates than were women's (South and Lloyd 1992). Testa et al. (1989) showed that premaritally pregnant women were more likely to get married if the father was employed. In summarizing this growing literature, Oppenheimer (1994) concluded that attention to women's changing economic status--as a cause of declining marriage--is misplaced. The emphasis should be on men's deteriorating circumstances, as has been the case historically (e.g., Landale and Tolnay 1991).

Others criticize such studies because, once again, they confuse cause and effect (Schultz 1994). To date, it has been difficult to evaluate empirically whether economically attractive men are more likely to get married, or simply that married men tend to be more productive in the workplace and are rewarded accordingly (Korenman and Neumark 1991). One recent study, for example, showed that married men were more likely to be employed and earn more than single men with similar characteristics (Teachman, Call, and Carver 1994). Unfortunately, recent nuptiality studies have rarely viewed marriage as a both a cause and consequence of men's employment.

Furthermore, perspectives that focus solely on men's economic status are incomplete, particularly for understanding either African American marriage patterns or racial differences in family formation. To be sure, the African American "marriage market" is different from the white "marriage market" in terms of lower employment and earnings. However, there is also a severe imbalance in the basic ratio of African American men to African American women. Compared with white women, African American women's marital prospects are clearly diminished by this severe imbalance in the sex ratio. This demographic deficit in the supply of African American men, reinforced by continuing strong norms against interracial marriage, depresses African American female marriage rates (Fossett and Kiecolt 1991; Lichter et al. 1991). While this shortage is exacerbated by men's deteriorating employment and earnings described above, economic conditions are not the only factors that affect racial differences in the marriage market.

Economic explanations also are incomplete when racial differences in marriage rates are considered from an historical perspective. African American and white marriage patterns were more similar in the aggregate in 1950 than they have been in recent years (Walker 1988), despite trends toward racial convergence in earnings, occupational distributions, residential patterns (i.e., less segregation), and political representation.
Simple economic explanations also cannot fully account for the decline in marriage among African Americans. Over the 1960-80 period, African American men experienced declining unemployment rates and substantial occupational mobility and real earnings gains, while marriage rates declined (Farley 1985). It is perhaps not surprising then that Wood (1995) found that the changing supply of marriageable African American men accounted for only 3-4 percent of the 1970-80 decline in African American marriage rates across 76 U.S. metropolitan areas. Since the mid-1980's, however, economic progress for African Americans has stagnated, while income inequality has grown (U.S. Bureau of the Census 1995). The problem has been especially problematic for young African American men. Unfortunately, studies linking post-1980 economic indicators with marriage trends, especially among young men, are lacking. Thus, the empirical support for supply-side arguments (i.e., those that emphasize shortages of marriageable men) remains inconclusive.

Economic explanations are, however, very helpful in explaining local racial differences in marriage patterns. McLanahan and Casper (1995) suggested that African American-white differences in local marriage market characteristics accounted for nearly one-third of the racial difference in marriage percentages. Recent contextual analyses, which have linked individual women's marital behavior to local marriage market indicators (e.g., sex ratio imbalances), have similarly emphasized the importance of marriage market conditions. Although market deficits of marriageable men, cannot completely "explain away" racial differences in women's marriage (Lichter et al. 1992), market factors are nevertheless more important in
explaining racial differences than were other individual factors, such as women's employment, fertility history, or welfare receipt.

From a policy standpoint, the implication is that strategies that improve the marriageability of men, perhaps through job training or compensatory educational programs, may ultimately contribute to raising marriage rates but will not restore them to levels in the past, nor will they entirely eliminate the currently wide disparities in marriage patterns between African Americans and whites.

## Cultural Shifts and Changing Family Values

Because economic and incentive-based arguments (e.g., welfare effects) seem inadequate in explaining marriage trends or African American-white differences, cultural explanations have become increasingly common (Bumpass

1990; Cherlin 1992; Morgan et al. 1993). The new "individualism" in America, the quest for personal fulfillment, and the (alleged) decline in moral or religious values have gone hand-in-hand with declining marriage rates. Marriage is often seen as restricting personal freedom and growth, as well as potentially handicapping work careers (e.g., tied migration). According to this argument, marriage and traditional family life are increasingly incompatible with the demands of a modern industrial economy.

What constitutes evidence supporting or refuting a cultural argument? One approach is to evaluate changing family attitudes. Here, the statistical association is clear: singlehood and unmarried motherhood are viewed as much more acceptable lifestyles today than in the past (Thornton 1989; Thornton, this volume). African Americans also generally are less likely to desire marriage than their white counterparts, even when differences in economic status and education are taken into account (South 1993). One interpretation is that the stigma associated with nonmarriage has declined overall, and especially among African Americans. An alternative view is that attitudes simply reflect behavior; individuals bring their attitudes into line with their behaviors. Previous studies have shown that individual attitudes toward divorce become more accepting after experiencing a divorce. Thus, there is built-in momentum to current marriage trends. Rising singlehood (through delayed marriage and divorce) reduces the stigma associated with this lifestyle, which in turn reduces the disincentives to singlehood for others.

Another approach is essentially a residual one, meaning that what cannot be explained by conventional variables (i.e., market conditions or women's employment) can be attributed to unmeasured cultural factors. For example, McLanahan and Casper's (1995) multivariate analyses showed that time period (i.e., 1970, 1980, and 1990) had the largest single negative effect on African American proportions married. This result means that marriage rates declined with time, even after taking into account changes in various indicators of women's and men's economic circumstances, sex ratio imbalances, and welfare. Although not discussed by McLanahan and Casper, this temporal shift in African American marriage can not be explained away by conventional economic or welfare arguments. Cultural changes evidently are cross-cutting most demographic and economic segments of American society.

A related approach is to examine changes in marriage directly for different economic segments of the population. The overwhelming evidence is that declines in marriage have occurred for virtually every segment of American society--the young and the old; employed and unemployed; affluent and poor; highly educated and less educated; urban and rural residents; African American, white, and Hispanic. Current marriage trends are ubiquitous and therefore imply sweeping cultural changes that have affected virtually all social, economic, and demographic groups.

Another approach that emphasizes culture rather than economic circumstances is to compare marriage patterns for different racial and ethnic groups with similar economic disadvantages. Oropesa, Lichter, and Anderson (1994) noted that African Americans and Mexican Americans have similar economic circumstances, as measured by poverty and employment, but that Mexican Americans have marriage rates that are more similar to their economically-advantaged white counterparts. The substantive implication is straightforward: economic factors alone cannot account for the depressed marriage rates of African Americans. Indeed, Oropesa (1995) reported that Mexican Americans were significantly more likely than non-Latino whites or Puerto Ricans to agree that "it's better to get married than go through life being single."

A final approach is to identify specific cultural shifts that have undermined traditional marriage patterns. For example, changing nonmarital sexual attitudes and behavior coincide with the retreat from marriage. Sexual intercourse outside of marriage is more widely accepted and practiced, in part because the perceived risk of unwanted pregnancy has been reduced through improvements in contraceptive technology and abortion. Yet, total pregnancies among unmarried women (including births, abortions, and miscarriages) numbered an estimated 2.8 million in 1991 (Ventura et al. 1995), suggesting that the of use of effective and affordable contraceptives and family planning services has lagged behind increases in premarital sexual activity. Sexual permissiveness among teenagers also may have contributed indirectly to the declining rate of marriage following pre-marital pregnancies, which has been a major factor fueling the rise in nonmarital fertility. Manning (1993) showed that the nonmarital fertility ratio for 1980-84 would have been about 25 percent lower than the observed ratio if the rate at which nonmarital pregnancies were followed by marriage remained at the 1970-74 levels.

The rise in nonmarital cohabitation is another cultural shift that has contributed to delayed marriage and declining remarriage (Bumpass, Sweet, and Cherlin 1991). And, even though fertility rates are very low among cohabiting couples (Manning 1995), the children born to a cohabiting unmarried couple account for 27 percent of all nonmarital births (Bumpass and Sweet 1989). The percentages are even higher among non-Hispanic whites and Mexican Americans -- 29 and 40 percent, respectively. There is some evidence that premarital pregnancy or childbearing hastens marriage between biological parents (Bennett et al. 1995; Manning and Smock 1995), but decreases the probability of marriage between unwed mothers and other men.

To be sure, these data raise obvious questions about the "causes" for such cultural shifts. Cultural arguments are more ephemeral than economic perspectives, at least from a policy standpoint. How can attitudes and values be changed? Do efforts to change family values conflict with other important values (e.g., values regarding the changing role of women or individual freedom). And do policy efforts to change values impose a Euro-centric ideal on American family life that is inconsistent with the current celebration of family diversity? These are ultimately political questions that are beyond the scope of this paper.

## Policy Implications

Clearly, one-dimensional arguments of changing marriage patterns which focus solely on changing gender roles, on welfare, or on men's economic status are incompatible with the historical record. Current marriage trends have taken on a life of their own through decades of technological and social change. The trajectory of change will not easily be reversed in the short-run, even if the political will exists to change its course.

This does not mean that public policy should be indifferent to current marriage and divorce trends. The evidence is overwhelming: marriage is beneficial to individuals and society, on balance (Waite 1995). Married people have better emotional and physical health. They live longer. The children raised by a loving married couple have well-documented advantages, both emotionally and economically, over children living in single-parent families.

But simple policy solutions will not suffice. Indeed, economic and welfare policies alone are not family policies. Both must nevertheless be sensitive to any unintended consequences for nonmarital childbearing, but also to creating disincentives to marriage. Like other western industrialized societies, a comprehensive family policy may now be required, one that recognizes and supports married couples and their children (DaVanzo and Rahman 1993). Child care subsidies, child allowances, and less stringent AFDC-UP eligibility requirements represent some options, as does eliminating the so-called "marriage penalty" in the current tax code (Feenberg and Rosen 1994). In the final analysis, policies that address the current retreat from marriage have the indirect benefit of potentially reversing or slowing the rise in nonmarital fertility in America.

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# Family Structure and Nonmarital Fertility: Perspectives from Ethnographic Research

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## Introduction

In order to more fully inform our understanding of whether nonmarital fertility is an intergenerational phenomenon and to gain additional insights into how real life, day-to-day experiences of families impact nonmarital fertility, this paper reviews and critiques ethnographic research on family structure and nonmarital fertility. This review is structured as follows. First, a brief definition of ethnographic research is presented followed by a critique of the demographic and ethnographic literature on the intergenerational transmission of nonmarital fertility. Next, a discussion of the insights that ethnographic studies provide concerning family processes (e.g. parental monitoring of children) that influence nonmarital fertility is presented. The implications of these ethnographic research findings for public policy concerning nonmarital fertility and family structure are outlined in the concluding remarks.

## What is Ethnographic Research?

Ethnographic researchers use intensive, in-depth, investigative and analytic strategies (i.e., life history interviews, participant observation, focus groups, field research) to gather and analyze data on the shared beliefs, practices, artifacts, folk knowledge, and behaviors of people within a specific social context or culture. The goal of ethnography is to identify the complex interrelationships of causes and consequences that affect human behavior in a particular culture or social setting. In doing so, ethnographers (1) uncover the beliefs and meanings that individuals attach to their behaviors, and (2) provide a detailed description of the relationship between these behaviors, influences such as communities and neighborhoods, and individual interpretations of those influences (Spadley and McCurdy 1972; Suttles 1986; Denzin and Lincoln 1994; LeCompte and Preissle 1993).

A number of social scientists (including sociologists, anthropologists, economists, and demographers) have suggested that ethnographic research is particularly appropriate for exploring the complex relationship between family structure and nonmarital fertility (Finch 1986; Jarret 1990 1994; Axinn, Frick and Thornton 1991; Rank 1992). Ethnographic research, given its focus on intense, continuous, and often microscopic observations of families in a specific environment or culture, provides rich and informative insights on the Subjective perceptions and meaning of marriage and childbearing in families. Ethnographies also offer detailed profiles of family processes (e.g., child rearing strategies) that influence nonmarital fertility (Becker 1970; Bulmer 1986; Burgess

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The author's research reported in this paper was supported by grants from the William T. Grant Foundation, A FIRST Award from the National Institute of Mental Health (No. R29MH 4605-01), and support services provided by the Population Research Institute, The Pennsylvania State University which has core support from NICHD Grant 1-HD28263. This paper was prepared while the author was a Visiting Scholar at the Center for Developmental Science and the Carolina Population Center, University of North Carolina, Chapel Hill. The author extends thanks to Dennis Hogan, Betty Hamburg, Robin Jarrett, Wendy Manning, Daniel Litcher and Keith Whitfield for helpful comments in early discussions of this paper.

1982 1984; Emerson 1981). Such insights are rarely captured in demographic and survey research which rely heavily on data collected from structured questionnaires administered to respondents at discrete points in time (Corsaro and Rosier 1992; Jarrett 1990; Ross and Sawhill 1975).

Many of the papers in this volume examine patterns of nonmarital fertility using data collected from one to four members of large numbers of families who participate in survey research projects (e.g., National Survey of Families and Households, Panel Study of Income Dynamics). By comparison, ethnographic studies involve much smaller samples of entire kin units. Some argue that the small sample sizes (e.g. 10-200 kin units) comprising most ethnographies greatly reduce the generalizability of ethnographic research findings. However, when numerous ethnographic studies (e.g. on African-American, Puerto Rican, white, and Hispanic families) are synthesized and evaluated as a collective, they provide fairly consistent and generalizable findings on the relationship between family structure and nonmarital fertility (see Jarrett 1990).

A number of the ethnographic studies discussed in this paper were not designed specifically to examine the relationship between nonmarital fertility and family structure. For example, much of the ethnographic research on Hispanics focuses on gangs (Sullivan 1989; Horowitz 1983). Ethnographic research on Puerto Rican families has principally been concerned with the migration experience (Padilla 1958; Rodriquez 1989). Descriptive accounts of African-Americans assess the impact of poverty on family networks in urban settings (Stack 1974; Burton 1995; Jarrett 1994). And, studies of poor whites focus on the impact of job market change on families in rural and working-class neighborhoods (Howell 1973; Rainwater and Wolfe 1968; Rubin 1976). Despite the fact that the major focus of a number of ethnographies reviewed here was not to assess family structure and nonmarital fertility directly, data on this relationship is a notable component of the profiles of families that each of the ethnographies provide.

In some instances, the ethnographic and demographic data reviewed in this volume provide alternative interpretations to associations and causal relationships between family structure and nonmarital fertility. It is important to note, however, that ethnographic and demographic research are not in competition with one another. Rather, they complement each other (Axinn, Fricke, and Thornton 1991). In fact, when the two types of research are used in concert, they provide a more complete story of the factors that impact the relationship between nonmarital fertility and family structure.

## Intergenerational Transmission of Nonmarital Fertility

In the wake of increasing numbers of nonmarital births, poor, female-headed, single-parent households, and divergent attitudes on what constitutes viable family circumstances for children, demographic researchers have vigorously explored the relationship between family structure and nonmarital fertility (Solinger 1992; Pagnini and Rindfuss 1993; Cerullo and Erlien 1988; Powers 1993; Trent 1994; Ross and Sawhill 1975; Garfinkel and McLanahan 1986; Nichols-Casebolt 1988; Duncan and Hoffman 1990; Franklin, Smith and Miller 1995).

Family structure, as it is most commonly assessed in these studies, focuses on whether children grow up in "intact" or "non-intact families" (Burton and Jarrett 1991; Wu and Martinson 1993). Intact or "nuclear" families are typically defined as those where both biological parents are present in the household. Non-intact families are principally characterized as single female-headed households (Cooksey 1990; Duncan and Rodgers 1987; Michael and Tuma 1985). Essentially, the research question of interest has been, does growing up in a single-parent, female-headed household (non-intact) as compared to a two-parent (intact) household increase an individual's likelihood of having a nonmarital birth? (See, for example, McLanahan in this volume.)

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It is a fairly widespread belief that patterns of marital and nonmarital fertility are transmitted across generations in families. That is, individuals who have grown up in single parent households go on to be single parents and their children do the same. Similarly, those who grow up in two parent families are believed to have a higher probability of producing children within a marital union. The conceptual argument that undergirds these beliefs is that parents transmit attitudes, values, and preferences to their children concerning marriage and fertility behavior across generations (Anderton, Noriko, Lee, and Mineau 1987). For example, in presenting an overview of this argument in their research on teenage parenthood, Kahn and Anderson (1992:41) note that some scholars hypothesize that "if a mother's first birth was within marriage, the teen mother may socialize her daughter with strongly traditional values emphasizing the importance of both marriage and motherhood... on the other hand, if her first birth was premarital, the teen mother may be more tolerant of similar behavior in her daughter" (Thornton and Camburn 1987).

In theory, if marriage and fertility behaviors are directly transmitted from parent to child, we would expect that both the rates of nonmarital and marital fertility would be comparable and consistent across generations of families. However, while intergenerational transmission of values may be a contributing factor to the increase in nonmarital births, by itself it does not account for the dramatic increase (see Ventura, Bachrach and Kaye, this volume) in nonmarital births in recent decades. Therefore, the role of other contributing factors should also be examined. For example, while the child of a teen mother may be more likely to have a nonmarital birth , this may reflect conditions of poverty and limited opportunity rather than a transmission of values and preferences.

As this discussion suggests, the relationship between family structures, the intergenerational transmission of beliefs concerning marriage and childbearing, and nonmarital fertility is not a clear, straightforward one. The confusion stems from four interrelated sources: (1) inferences which suggest that patterns of intergenerational nonmarital childbearing among teens and their families reflect comparable patterns in the general population; (2) a lack of specificity on how the origins of single parenthood (e.g., nonmarital fertility or divorce) impact nonmarital fertility; (3) the absence of variables in demographic research which adequately assess other environmental and family influences on the intergenerational transmission of nonmarital fertility; and (4) grouping single mothers into a single category which fails to recognize the diversity of their behaviors and their children's outcomes.

## Differences in Teenage and Adult Nonmarital Fertility

One source of difficulty when assessing the effect of intergenerational transmission on nonmarital fertility is that most existing research focuses on minor teen mothers and we know little about intergenerational transmission of nonmarital fertility among older mothers. With the exception of a few notable studies (e.g. Furstenberg, Levine, and Brooks-Gunn 1990), both demographic and ethnographic studies suggest that daughters of adolescent mothers regardless of race, face significantly higher risks of experiencing a premarital pregnancy and birth (Hayes 1987; Card 1981 Presser 1978; Hogan and Kitagawa 1985; Kahn and Anderson 1992). However, while these studies are based primarily on minor teens, they make up a proportionately small share of all unmarried mothers. As indicated by Ventura, Bacharach and Kaye (this volume), school-age unmarried teens (aged 15-17) have a much lower birth rate than unmarried women of other ages. In fact, unmarried women in their twenties (20-24), followed by those between the ages of 18 and 19 are the most likely to give birth.

Unfortunately, while the majority of nonmarital births occur to women age 18 or older, we know little about what factors affect nonmarital fertility for this older group of women. Intergenerational patterns of nonmarital fertility among teens are most likely related to additional factors such as the socioeconomic, familial, and peer contexts in which they grew up. (Burton 1990; Ladner 1971; Kahn and Anderson 1992) Because unmarried minor mothers and unmarried adult mothers are not developmentally at the same stages in their lives, biological and psychological factors, social institutions, and social environments probably affect their lives differently. Thus, research regarding the intergenerational transmission of nonmarital fertility for minor mothers is not necessarily generalizable to older unmarried mothers (Elder 1985; Hogan 1987; Burton, Allison, and Obeidallah, in press). Future research needs to examine systematically how the intergenerational transmission of childbearing and marital behaviors affects nonmarital fertility among adult women, and identify what other factors may contribute to their nonmarital fertility.

## Paths to Single-Parenthood: Ambiguity in Points of Origin

A second reason why it is difficult to accurately estimate the intergenerational relationship between nonmarital fertility and family structure is that much of the research to date does not recognize that single parenthood may be the result of bearing a child outside of marriage, divorce, widowhood or some combination of all three. Thus, while men and women raised in a single parent homes may be more likely to have a child outside of marriage, this may happen because their own parents had a nonmarital birth, or because they experienced the consequences of their parents going through a divorce. With the exception of a few notable studies (Duncan and Rodgers 1987; Wu 1994; Wu and Martinson 1993; Bumpass and Raley 1995) it is often unclear whether the findings on the intergenerational transmision of nonmarital fertility have properly distinguished between children of unmarried mothers and children of other single mothers (e.g. divorced or widowed mothers).

Wu and Martinson (1993), reporting findings from a study of family structure and the risk of premarital birth using data from the National Survey of Families and Households, suggest that women experience "spells" of single parenthood across the life course of the child. Their study indicates "that changes in a woman's family situation (moving from single parent to two-parent family and back to single parent) had a large and highly significant effect on the risk of a premarital birth for white women and Hispanic women, and a smaller but still significant effect for black women." Consequently, it may not be the nonmarital birth that directly impacts the child repeating the fertility behavior of his/her parent. Rather, it may be the mother's or father's changes in family situations that affect a nonmarital fertility outcome of the child. Ethnographic research supports this proposition (Burton, in press; Jarrett 1990). For example, a young unmarried mother in Burton's (1995) five-year ethnographic study of 150 urban African American families residing across 18 neighborhoods noted:

> *When you ask me what affected my life most about my mother and father, it was that they never stayed either married or single long enough. One day it was one thing the next day another. I decided to have my child and remain single so that my baby would have a stable life. All single mothers are not like mine. Some don't get married so they can have a stable life for their child.*

## Social Environmental, Family Development and the Intergenerational Transmission of Nonmarital Fertility

The third reason why much research does not adequately assess the question of whether "nonmarital fertility begets nonmarital fertility" is it fails to control fully for other influences that also affect nonmarital fertility. Features of the social environment such as neighborhood activities (Guest 1974; Merry 1981; Burton 1991) and aspects of family development such as strategies used by parents in raising their children (Jarrett 1990) are important influences on child outcomes. These factors are often the "unobserved" variables that demographic research has difficulty measuring and adjusting for (Powers 1993). Because these types of contextual and family variables are difficult to measure, family structure serves as a marker or as an indicator for these unobserved variables. However, this results in misleading interpretations or presentations of the research findings as to what the effect of family structure is, and what these unobserved and unmeasured factors could be.

A review of demographic research suggests that, at best, there is a weak to moderate association between family structure (defined as intact and not-intact families) and nonmarital childbearing (Powers 1993; Trent 1994). The lack of a strong association or direct causal effect suggests that other things are going on in contexts and in families that influence nonmarital fertility. For example, findings from ethnographic studies indicate that whether individuals perceive that growing up in a high risk environment foreshortens life expectancy greatly impacts the occurrence and is associated with a higher incidence of nonmarital fertility in some economically disadvantaged communities (Garbarino, Kostelny and Dubrow 1991; Kotlowitz 1991; Burton, Allison and Obeidallah, in press; Sullivan 1989; Macleod 1987).

Ethnographic research indicates that young men in these high-risk environments may encourage their girlfriends, and their girlfriends may agree,, to have children early or without being married because some of these young men do not expect to live past their mid twenties. This expectation is particularly consistent with demographic profiles which underscore the high mortality rate of African American males in their late teen and early twenties (Staples 1985). Many of these young men die as a result of violent crimes, including those who die as a result of homicide who are not involved in criminal activities (Bourgois 1991), but simply get caught in the crossfire.

Stoney, a young participant in Macleod's (1987:61) ethnographic account of African American males in a low income neighborhood responded to the question "what will you be doing in twenty years," as follows:

> *Hard to say. I could be dead tomorrow. Around here, you gotta take life day by day.*

Similarly, a 19-year-old white male who participated in Burton's (1994) ethnographic study noted:

> *It ain't nothing but a thing. You could die tomorrow in some of these neighborhoods. It ain't everybody doing the stuff. Just a few knuckleheads. But they can still take your life. That's why my girlfriend had a baby. Just in case I get killed, the world will know I been here cause my baby girl is here ... Her mother will be all right. They don't take women out like they take men out.*

## The Problem of Aggregate Data

The fourth source of ambiguity concerning research on the intergenerational transmission of nonmarital fertility involves the level of aggregation or grouping used in studies of single mothers. Often research tends to examine single parents as a single group (Bumpass and Raley 1995). The aggregation of single parent data is useful for measuring broad trends in the levels of nonmarital childbearing, but it obscures distinctive features that exist among single parents. For example, the life situations of single parents who successfully raise their children in high risk environments are "lost in the aggregation." Ethnographic research has consistently found that competent single mothers and fathers have a strong impact on deterring early and nonmarital childbearing behavior of their children (Rainwater 1970; Aschenbrenner 1975). Jarrett (1994:44) reporting data from a focus group study of 82 African American single mothers, highlights the perceived strength and competence of two mothers, Crystal and Connie (pseudonyms). Each mother respectively notes:

> *I can discipline [my children] myself. I have that bass in my voice ... I raise my voice and they'll sit down. They'll mind me; they'll mind my mother.*
>
> *I can be their mother and father and teach them values, teach them the right things ... I don't think they have to have a father in the home to teach them the right things.*

In addition, aggregate data may generate misleading interpretations about the relationship between nonmarital childbearing and crime. While there may be higher levels of crime in many neighborhoods with high concentrations of single mothers, this is not necessarily because single mothers are unable to supervise their children, as some have suggested. Rather, ethnographic research suggest that most of the children of single mothers in these neighborhoods are not involved in criminal behavior. In fact most of the crimes in these neighborhoods are committed by a small group of individuals, many of whom live outside of the neighborhoods in which they commit their crimes. Moreover, the monitoring and supervising of children is a problem for some mothers but not all. Ethnographic research indicates that many single mothers and single fathers have developed an elaborate system of child monitoring. Steven, a 37-year-old single parent of three teenage boys expressed the arrangements he makes for their care (Burton 1991:36):

> *Yes, I worry about them. There is so much here to get in to ... But I call my boys every hour and come home on my break. They know they better be here when I come.*

Jarrett (1994) describes yet another strategy used by single parents rearing their children in high risk neighborhoods. These strategies concerns the level of access single parents have to extended kin who live in "better off" neighborhoods. Jarrett (1994:120), summarizing findings from two ethnographic studies of parental monitoring strategies in high risk neighborhoods, reports the advantages of ties to economically secure kin that two mothers, Cara and Lillie (pseudonyms) describe:

> *We are lucky that we have family who live in other neighborhood here. We can send our children to their houses to play with other. kids (Burton and Jarrett 1991:35)*
>
> *Relatives, when they are available, supply the safest companions or, at least, they can become the connecting link to other desirable friends ... in fact, Davenna does not have close relatives living in or near the Projects. She goes to school outside the neighborhood. When she wants companionship, she often crosses the city to see her old friends and relatives. She finds protection by maintaining links to another community that offers greater resources (Furstenberg 1993:241)*

### Ethnography, Family Structure, and Nonmarital Childbearing: Additional Pieces to the Puzzle

As noted earlier, ethnographic research places nonmarital childbearing in a social context particular to each family, and provides insights into the influences of dynamic environmental and family processes that impact the relationship between family structure and nonmarital childbearing. In addition, ethnographic research offers greater specificity to the definition of families. Families rarely fit the compositional labels of "intact" and "non-intact" households ascribed to them and family structure often changes over time (Burton and Jarrett 1991; Coontz 1992; Ruggles 1994). In fact, the greatest diversity in family structures is witnessed among families labeled as "single-female headed household" (Gongla and Thompson 1987; Brewer 1988; Hanson, et al 1995).

Ethnographic research, as well as demographic analyses, suggest that some households delineated as single-parent actually comprise cohabiting relationships between partners or other family members (Eggebeen, Crockett, and Hawkins 1990; Manning 1993; see Ventura, Bacharach, and Kaye, this volume). Bumpass and Raley (1995:107) report that "children's experiences in the early 1980's suggest that nearly one-third of the single-parent time, as usually classified, was spent within a cohabiting family or in grandparent's household." In addition, particularly among ethnic/racial minorities, the family structure of single mothers and fathers can span a multitude of blood-kin and non-relatives dispersed across a variety of households within and across neighborhoods with individual members within them representing a range of economic resources (Stack and Burton 1993; Jarrett 1994). Comparable variability in family membership is found in "two-parent" households (Kellam, Ensminger and Turner 1977; Wilson 1986; Baca Zinn and Eitzen 1992).

However, as McLanahan (this volume) suggests and ethnographers agree, being part of a larger extended network or having multiple family units co-reside has its disadvantages (Stack and Burton 1993). Notable disadvantages include having to disburse fewer resources across more people (Angel and Tandy 1982; Johnson and Barer 1990) and, particularly between co-residing teen parents, grandparents, and great-grandparents, intergenerational conflicts concerning child rearing (Tinsely and Parke 1984; Burton and Bengtson 1985; Burton, in press; Chase-Lansdale and Brooks-Gunn 1993).

There are several additional issues that ethnographic research suggests are important to consider in unraveling the complex relationship between family structure and nonmarital fertility. These issues include: (1) nonmarital fertility as a cultural behavior; (2) family instability and nonmarital fertility; (3) the declining economic resources of kin networks; (4) the relationship between sexual and physical abuse and nonmarital fertility; (5) the role of fathers in mediating the negative effects associated with nonmarital births; and (6) the importance of paternal grandparents in caring for the children of unmarried parents. These issues are discussed below in greater detail.

## Culture and Nonmarital Fertility

Many explanations have been offered as to why nonmarital childbearing has increased so dramatically in the last several decades, particularly among African Americans (Bumpass and McLanahan 1986; Bane and Jargowsky 1987; Cherlin 1988). Some have argued that the increase is rooted in the cultural beliefs of particular ethnic/racial subpopulations within American society (Sullivan 1993). Still others contend that the rise in nonmarital fertility among poor urban minorities reflects the cultural behavior of the "underclass" (Auletta 1982; Lemann 1986; Mead 1986; Murray 1984; Ricketts and Sawhill 1988). The "underclass" is a term used to delineate the population of poor minorities who reside in urban areas and are characterized as fostering ghetto-specific norms "that positively endorse single motherhood, out-of-wedlock childbearing, welfare dependency, male irresponsibility, criminal behavior, low mobility aspirations, and more generally, family instability" (Jarrett 1994:32; Hochschild 1991).

However, caution should be exercised when assessing the relationship between culture and nonmarital fertility. While nonmarital fertility may appear to be a product of cultural norms, it may instead be a response to difficult environmental circumstances which affect some ethnic or racial subgroups more than others. Interpretations which describe nonmarital fertility as a cultural behavior are primarily drawn from studies which typically examine aggregate patterns in the rise of nonmarital fertility, most often comparing whites, African Americans, Puerto Ricans, and Mexican-Americans then attributing the behavioral outcome--nonmarital fertility--to a cultural practice. However, Gans (1969) argues, as do other ethnographers, that it is inaccurate to equate a behavioral outcome as "cultural" simply based on the aggregate incidence of its occurrence (Suttles 1976). Behavioral outcomes do not necessarily represent people's values or aspirations, but may instead simply be the product of a series of events, circumstances and decisions that help people to survive in a particular environment. Anthropologists, particularly, note that aspirations, rather than behaviors, are a more powerful indicator of culture. Ethnographic research is particularly well-suited to discerning the normative aspirations of a population.

For example, ethnographic research, as well as some attitudinal surveys (see Thornton, this volume), suggests that ethnic minorities, as well as poor whites, aspire to mainstream norms concerning marriage, childbearing, and hopes for the future. Sullivan (1993:313) in an ethnographic study of the relationship between culture, class, and nonmarital fertility among a sample of white, African American, and Latino teens reports that "the data strongly contradict the notion that early, out-of-wedlock childbearing is unhesitatingly accepted in poor inner city, often minority neighborhoods where it is so prevalent ... all the groups examined clearly perceive burdens associated with early parenthood and take steps to avoid it." Jarrett (1994:33) in a comprehensive review of the ethnographic literature further substantiates this claim in stating, "[ethnographic] data reveal that the poor share conventional aspirations concerning family life, rather than exhibit a deviant set of values." Duneier (1992:65), in an ethnographic account of African American males residing in Chicago, comments on the values and aspirations of Slim and his friends:

> *Slim and his sitting buddies want to live in accordance with notions of appropriate or correct behavior. The idea of "respectability"--defined as a mode of life conforming to and embodying notions of moral worth--has great significance for them. They are people with definite opinions about the kinds of conduct appropriate to their level of moral worth and of the minimal standard they are willing to tolerate in their own behavior or that directed toward them.*

Overall, ethnographic research challenges cultural arguments concerning nonmarital childbearing and, as do a number of demographic studies, supports a structural explanation of the rise in nonmarital fertility. The structural argument attributes the rise in nonmarital fertility to changing economic factors (i.e., male unemployment ) that have impeded the construction and maintenance of mainstream families (Staples 1985). These structural factors, however have not impeded individuals' desires to have children. A young woman in Jarrett's (1994:46) focus group study of single mothers commented:

> *Just because you poor, you want someone to love too. Just because you poor, you might have to live off welfare, that doesn't mean that you're not eligible to have children. Like once you reach a certain income that you not eligible to have children because you too poor.*

## Family Instability and Nonmarital Fertility

At the crux of some theoretical arguments which suggest that single-parent families beget single-parent families is the assumption that children remain in the same family situation, for better or worse, from birth to early adulthood (Wu 1994). As such, some would argue that an individual's decision whether to have a nonmarital birth is a function of having been exposed consistently to "bad" one- or "good" two-parent living arrangements all one's life (Bumpass and McLanahan 1988). This assumption is rarely correct. Demographic and ethnographic research indicate that children experience constant changes in their family configurations, economic base, and living arrangements through the marriage, divorce, remarriage, mortality, job loss, migration, etc, of their parents and the variability has increased over time (Duncan and Rodgers 1987; Rindfuss and Jones 1991; Wojtkiewicz 1992; Winkler 1993).

These changes are further exacerbated for minority children through their disproportionately higher life-long experiences with poverty and racism (Spencer 1995). The comments of Terrance (pseudonym), who was a participant in a five-year ethnographic study of adolescent childbearing among 150 African American families (Burton and Jarrett 1991; Burton 1995) illustrates how instability affects the lives of teenagers. Terrance is a 15-year-old male who resides in a two-parent household. He stated:

> *So many things keep happening all at one time. My mother gets married. My real father gets a divorce again. My youngest sister has her third baby. My oldest sister leaves to go live with her boyfriend. One of my [step] brothers gets killed. My grandpop is dying. Hey, what's up with all this! Too many changes all the time. Who is my family anyway?*

In addition to the changes in family composition exhibited in the words of Terrance, frequent residential moves, particularly to inferior housing, introduce tremendous instability in the lives of families and children. Within the same study that Terrance participated in, young mothers, fathers, their children and extended kin report having to move 7-10 times within any given year and usually under circumstances where parents and children could not all live together.

The moves by the study participants were prompted by a combination of factors including: (1) their residence burning down (usually because of faulty electrical wiring) or being condemned; (2) evictions; (3) only being able to stay in homeless shelters for 30 days at a time because "that is the rule"; (4) homeless shelters not allowing adolescent male children or siblings to reside with their families in the same shelter; (5) displacement due to neighborhood redevelopment initiatives; (6) scarcity of clean and safe affordable housing; and (7) the inability of other relatives to house individual family members because of limited space and resources. The recent work of Burton and Duncan (1993), which combines ethnographic and demographic research, indicates that these frequent residential moves for females, particularly during the ages of 10-13, increases their likelihood of having an early nonmarital birth.

Overall, research suggests that regardless of family structure, children need stability and predictability in their day-to-day lives and living arrangements. Preliminary analyses of the data from the Burton (1995) ethnographic study, as well as other ethnographies, indicate that the teen males and females who experienced the least amount of disruptions in their family lives were the most likely not to have a second child during the five year life of the study. Those teens, however, who did go on to have a second or third nonmarital birth had experienced constant dramatic changes in their lives before they became pregnant or fathered a child. The changes were clearly, in almost all instances, related to poverty that extended beyond their immediate familial situation. For most of the young women and men that went on to have additional children, their ***entire*** family network was poor with few, if any resources to share across households.

### Declines in the Economic Resources of Kin Networks

Within American society there have always been poor single-parent and two-parent families, and disproportionately so among African American, Mexican-American, Puerto-Rican, Native-American and rural, white families (Rubin 1976; Williams and Kornblum 1985; Patterson 1981). In the past, poor families have been able to garner resources in addition to public support and to develop economic survival strategies that involved the available resources of entire kin networks (Zollar 1985; Conger and Elder 1994; Edin 1991; Scheirer 1983; Jarrett 1994). Earlene Mills (pseudonym), a participant in one ethnographic study commented:

> *You see, my father use to make some extra money on the side. He helped me sometimes with my kids. I used that money to get better things for my daughter and son. Now my daughter has a good job and she is doing better and better. We will work together, with her money, and my check to buy a house so that we can get out of here. You can't make it out if you don't have help from your kin somewhere.*

Although some families in which a nonmarital birth has occurred have extensive family support and resources (Jayakody, Chatter, and Taylor 1993), many families today are not fortunate enough to have the same extended family resources that were available to Earlene. Huston, McLoyd, and Garcia Coll (1994) report that "government benefits declined during the 1970s and 1980s ... The real value of such cash benefits as Aid to Families with Dependent Children decreased with inflation, and federal policy changes in the 1980s further reduced the amount of benefits and the number of children eligible for them." As such, families have less resources to survive on than ever. What makes the situation even more critical than in the past is that *entire kin networks have almost no resources to share* (Eggebeen and Hogan 1990; Johnson and Barer 1990; Burton 1992; Taylor, Chatters, Tucker and Lewis 1990; Sidel 1990). Poor single-parent and two-parent families alike are left with no financial safety net (Kozol 1988). As a consequence, the absence of a kin safety net intensifies the precarious nature of family life for children growing up in extreme poverty.

## Sexual Abuse, Physical Abuse, and Nonmarital Fertility

A growing body of research suggests that, regardless of family structure, there is a strong relationship between nonmarital fertility and having been sexually abused as a child (DeFrancis 1969; Elster, Panagarine, and McAnarney 1980; Abernathy, Robbins, Abernathy, Grunebaum, and Weiss 1975). For example, in an in-depth study of a non-clinical sample of working-class white rural teen mothers, Butler and Burton (1990) report that 54 percent (or one in two) of the mothers had been sexually abused by the age of 18 and had never reported the incident to anyone. Comparable findings are noted in other studies (Herman 1981; Russell 1986; Ounce of Prevention Fund 1987). A major shortcoming of this research, however, is that the few studies that exist focus primarily on the lives of teens. Very little information exists on the association between sexual abuse and nonmarital childbearing for unwed mothers age 20 and older.

The incidence of young males who father children outside of marriage and were sexually abused as children is only beginning to be explored and also deserves further attention. Nonetheless, some preliminary studies suggest that at least one in every three of these young fathers has been sexually abused (Burton 1994). Despite these numbers and the popular media exposure given to the abuse of children, ethnographic and community-based needs assessments indicate that county social services, school-based counseling programs, community mental health centers, and birth control clinics do not have the personnel or resources necessary to deal with the high numbers of abused children they come into contact with on a daily basis (Gordon 1988; Russell 1986).

## Fathers and Nonmarital Fertility

Ethnographic research suggests that despite the image of marginalized roles of males in families often promoted by the media, political discourse, and some mothers, many men do play an important role in the lives of children (Danzinger and Radin 1990; Gershenson 1983). Clearly, their are some unmarried fathers who do not contribute emotionally or materially to the welfare of their children as a matter of personal choice, the lack of financial resources, or resistance by the child's mother (and sometimes her family) to his involvement in the child's life. However, many unmarried fathers do provide financial resources, clothing, food, emotional support, baby-sitting, and supervision of their children (Achatz and MacCullum 1994; Bloom and Sherwood 1994; Edin 1994; Sullivan 1985; Holloman and Lewis 1978).

Edin (1994:7), reporting findings from an intensive interview study of single welfare mothers in four U.S. cities notes that one third of the women in her sample reported "that they received regular financial support from the fathers of their children and another 30 percent stated that although they didn't get cash assistance, they received in-kind contributions such as disposable diapers, school clothing and shoes, and/or Christmas and birthday gifts." According to a survey of low-income noncustodial fathers participating in the Parents Fair Share Demonstration, 24 percent reported paying formal support in the past three months, 50 percent reported providing money directly to the child or the child's mother and 55 percent reported buying clothes, furniture or other major items (Bloom and Sherwood 1994). It is important to note, however, that even with the assistance provided by some fathers, given inflation rates and the limited amount of economic resources provided by welfare programs, many mothers were still not able to make ends meet.

In addition to the support that some mothers receive from the biological fathers of their children, many males who are not the biological father of a child provide support for families and children. Particularly in minority families, these individuals include male companions, grandfathers, step-fathers, neighbors and friends (Burton and Sorenson 1992; Stack 1974; Jarrett 1994). For example, a 16-year-old male involved in one ethnographic study stated:

> *Tiffany ( a pseudonym) is not my baby, but she needs a father. To be with her, I work in the day care center at school during my lunch hour. I feed her, change her diapers and play with her. I buy her clothes when I can because I don't make much money. I keep her sometimes. Her mother and her family appreciate what I do and Tiffany loves me too. Every time she sees me she reaches for me and smiles.*

An elderly grandfather adds:

> *Many more Black grandfathers take care of babies and everybody than you think. We're just quiet about what we do. These babies love us too. Just look at how this one follows me around all the time.*

Ethnographic researchers who have discussed the policy implications of their research on the role of men in single mother families suggest that policies are needed to (1) assist biological fathers in acquiring resources (e.g., jobs) to financially support their children; (2) facilitate contact with their children; and (3) hold those fathers accountable who have resources but will not take of their children (Edin 1994; Joe 1984, Ray and McLoyd 1986; Burton 1994). However, policies which support and acknowledge the contributions of non-biological fathers to the lives of children are just as critical.

## Paternal Grandparents as Care Givers for Children of Unmarried Parents

As an extension of the discussion of the role of fathers in the lives of children, it is equally important to emphasize the role that the fathers' family of origin plays in the lives of children who are born to unmarried parents. Most demographic and survey research suggests that the family of the child's mother is primarily

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involved in the lives of children born to unmarried parents (Tinsley and Parke 1984). However, several ethnographic studies of families across racial groups indicate that the paternal family, particularly paternal grandparents often want to and have to provide stable environments for their grandchildren to grow up in (Burton 1992 1995; Kivett 1991; Burton, Dilworth-Anderson, and Merriwether-deVries 1995). While many paternal grandparents could provide homes for their grandchildren, there is concern that these grandparents often have no legal rights or access to social service supports for the grandchild if the biological father does not legally establish paternity.

Just as maternal grandparents and great-grandparents can be a resource for children whose parents cannot provide for them, paternal grandparents are a valuable resource as well. Ethnographic research regarding the potential role of grandparents indicates that the following policies would be important in facilitating their ability to take care of their grandchildren: (1) legal counseling concerning grandparents' access to their grandchildren and foster care and guardianship options; (2) parenting programs that would help grandparents proactively raise their grandchildren; (3) job counseling and information on "how to start your own business at home" so that grandparents can have additional options for garnering financial resources to raise their grandchildren; (4) respite care and health care, so that grandparents can maintain the personal physical and mental health needed to raise children well (Barry 1991; Burton 1992; Minkler and Roe 1993).

Henry, a 72-year-old grandfather who provides care for his grandchildren states the argument best:

> *We grandparents who are going through these times are all in this together. We are a resource in our community but we need help. We need help to raise these babies to be good men and women. We need help to survive. Sometimes all we need to have from someone is that we are not alone ... that someone appreciates the job we are doing.*

## Summary and Conclusions

The purpose of this paper was to enhance our understanding of the relationship between nonmarital fertility and family structure, using the unique insights provided by ethnographic research. This paper has highlighted areas of convergence and divergence between demographic and ethnographic research, as well as demonstrated how the two approaches when used in tandem provide a more complete story on the links between family structure and nonmarital fertility.

An important discussion provided in this paper concerns the intergenerational transmission of nonmarital fertility. The research suggests that the relationship between family structure, the intergenerational transmission of beliefs concerning marriage and childbearing, and nonmarital fertility is not a clear one. That is, single parent families do not necessarily beget single parent families and two parent families do not necessarily beget two parent families.

Moreover, in families where fertility behaviors are replicated across generations there appears to be a cadre of other social environment and family development factors that influence the outcome. However, these processes have not been adequately integrated into many demographic interpretations of the relationship between family structure and nonmarital childbearing from one generation to the next.

In addition to discussing important issues concerning the intergenerational transmission of nonmarital fertility, this paper highlights findings from ethnographic research that are important to consider in developing policy on family structure and nonmarital fertility. These findings are briefly summarized below:

- While changes in societal norms have affected nonmarital fertility in general, differences in nonmarital fertility across ethnic groups should not be viewed as a response to cultural norms, but rather an adaptation to structural circumstances.

- Instability in family composition and the family economic base accompanied by constant changes in living arrangements is associated with patterns of nonmarital childbearing.

- The economic and material resources of entire kin and friend networks are increasing becoming depleted with few opportunities for replenishing them. The combination of a lack of resources within broader family networks and the extreme poverty experiences of some single-parent and two-parent households increases the likelihood of nonmarital childbearing and reduces the quality of life for children.

- The sexual and physical abuse of children, regardless of family structure or income level, increases the likelihood of nonmarital fertility and reduces the quality of life for children.

- In addition to providing some economic support, men play an important role in family development. Supportive male figures may reduce the negative effects of poverty and nonmarital fertility and enhance the family life of children.

- The family members of males who have children outside of marriage often want to and can be a vital source of support to single mothers and their children.

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# The Effect of the Welfare System on Nonmarital Childbearing

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### Introduction

The factors that are most often held accountable for the increase in nonmarital childbearing in the U.S. are the welfare system in general and the Aid to Families with Dependent Children (AFDC) program in particular. Women who bear children outside of marriage and who have low income and assets are often eligible for benefits from the AFDC program, as well as from Food Stamps, Medicaid, housing assistance, and other programs.

Analysts have conducted a considerable amount of research over the last twenty years on the role that these public transfers have actually played in contributing to the incidence of nonmarital childbearing. This paper reviews and summarizes this research evidence. Below is a brief summary of this review's findings:

- Answering what appears to be a simple question--whether the welfare system increases nonmarital childbearing -- is, in fact, very difficult. There is extreme divergence in the findings of the research, for some studies find that welfare has no effect on nonmarital childbearing and other studies find significant effects.
- The reasons for the differences in the research findings are not readily apparent, and require more research to resolve them.
- Nevertheless, a reasonable reading of the evidence to date is that the welfare system may increase nonmarital childbearing, but the magnitude of its effect may not be large relative to the effect of other factors in contributing to recent increases in nonmarital childbearing in the U.S.
- In fact, the simplest evidence indicates that the welfare system has not been largely responsible for the recent increases in nonmarital childbearing.

### Different Ways to Measure the Effect of Welfare on Nonmarital Births

Before discussing the details of the evidence, it is important to understand that there are several different questions regarding the effect of public assistance programs on nonmarital childbearing. Probably the question of greatest interest to policy-makers is how much changes in these programs have contributed to the dramatic increase in the overall level of nonmarital childbearing that has occurred in the U.S. in the last two decades, particularly among teens. In measuring the effect of changes in the welfare system and the generosity of benefits, one must be careful to exclude the effects of other factors such as job opportunities that have also changed over the same period.

A separate, and very different, question is how much nonmarital childbearing would change if the welfare system were not present at all. When policy makers and the general public ask the question, "does the availability of welfare payments result in more nonmarital births?" this is the question being asked. This is a difficult question to answer because most transfer programs, such as AFDC, are in place in all states and have been for quite some time. Therefore we have no direct evidence on what would occur if AFDC or other welfare programs were eliminated.

A third and related question that is, instead, more amenable to analysis is how much a woman's likelihood of nonmarital childbearing would change if welfare benefits were raised or lowered. Since benefits vary across different states, it is possible to estimate whether benefit levels have any effect on the incidence of nonmarital childbearing, by comparing nonmarital childbearing rates between states with different benefits.

The distinction between these types of questions is important. While welfare may increase a woman's likelihood of having a nonmarital birth, it does not mean that welfare is responsible for the majority of the increase in nonmarital births over the last several years. The bulk of the existing research on welfare and nonmarital childbearing has focused on whether higher or lower welfare benefits affect someone's likelihood of having a nonmarital birth rather than trying to precisely calculate how much of the increase in nonmarital births over the past several years is due to welfare benefits.

However, the questions are related. If welfare benefits affect a woman's likelihood of having a nonmarital birth, this would imply that the welfare system is responsible for at least part of the change in nonmarital childbearing over the past twenty years. This effect could be in addition to other contributing factors. For example, if part of the increase in nonmarital childbearing over the past twenty years has been the result of a decline in the unskilled labor market, as some analysts have argued--leading women to have children rather than to stay in school and make a full-time commitment to work--one could hypothesize that nonmarital childbearing might not have risen as much as it has if the AFDC system had not been present to provide income to such mothers and their children.

When analysts seek to determine the effect of welfare benefits on nonmarital childbearing, they generally try to hold everything else "fixed". That is, they seek to determine whether two groups of women, both of whom are from the same neighborhood, from the same type of family background, and who face the same educational, labor market, and marriage opportunities--but have different welfare options (such as a different benefit level)--have different levels of nonmarital childbearing. Only the "incremental" effect of the welfare system--all else held "fixed"--is considered. This is often accomplished by using statistical techniques that net out the effects of all other differences besides welfare.

The reason why it is important for analyses to attempt to hold everything else fixed is that so many other factors that could also contribute to the increase in nonmarital childbearing have changed over the past twenty years. The labor market for unskilled workers has deteriorated, inner-city schools appear to have declined, and sexual mores and norms have changed throughout society, to name just a few of the changes. Consequently, while the initial effect of welfare on nonmarital childbearing may appear large, the change in nonmarital childbearing over time may not be as closely related to changes in the welfare system as might be expected once these other differences are adjusted for.

## Types of Comparisons Used in the Research

Analysts have used a variety of different types of comparisons in their attempts to isolate the effect of the welfare system per se, that is holding everything else fixed, on nonmarital childbearing. It is important to understand these different methods, because they are partly responsible for the differences in findings by different researchers.

Method 1. Analysts have directly compared trends in nonmarital childbearing over time with trends in welfare benefits. This method is used to answer question 1 above, and has been the exception rather than the rule because it is extremely difficulty to separate out the influence of welfare benefits from the influence of other factors that have also changed over time.

Method 2. Most often researchers compare the likelihood of nonmarital childbearing across states with the varying AFDC benefit levels across states, as described in question 3 above.[1] Over two-thirds of the research studies listed in Table 1 use this method of comparison. Typically, researchers attempt to take into account the influence of other factors on individual women's childbearing decisions--differences in education, family background, race, and labor market opportunities, and general differences across states, to mention only a few. A disadvantage of this method is that it is difficult to statistically adjust for all differences between women in different states. For example, a woman who lives in Mississippi and a woman who lives in California could have the same education, family background, and be the same race but the states might have different social norms or different opportunities that are difficult to measure statistically. If these other factors affect nonmarital childbearing, failing to control for them could lead to an incorrect estimation of the welfare effect.

Method 3. A variant of Method 2 which has been applied more frequently in the last two or three years compares the year to year *changes* in nonmarital childbearing and welfare benefits across states. Given that some states have raised benefits and other states have lowered them to varying degrees, one can examine across states how this change in benefits affects changes in nonmarital childbearing. Because this method does not try to compare the initial level of nonmarital childbearing across states, it has the advantage of being less affected by the cross state differences described above. For example, even if California and Mississippi started with different *levels* of nonmarital childbearing, one could still observe whether, say, a larger increase in benefits in California than in Mississippi lead to a larger increase in nonmarital births in California, without having to control for factors that lead to differences in the initial levels of nonmarital childbearing in the two states.

However, the results of this method could still be biased if other characteristics of the environment changed in different ways across states at the same time that benefits changed--for example, the state that lowered benefits may have experienced more economic stress than the other state. Also, while nonmarital childbearing may react to changes in benefit levels, the reaction may be slow and it is difficult to know how soon to look for a change.

Method 4. A few researchers have attempted to compare the likelihood of nonmarital childbearing in a particular state between women who are eligible for welfare benefits and women who are not. While such comparisons have strong intuitive appeal, they have been rarely applied by analysts because women who are eligible for welfare and women who are not eligible for welfare differ in so many other ways. For example, welfare-eligible women have low income, by definition (otherwise they would not be eligible for welfare). Because low income by itself may increase nonmarital childbearing, it is difficult to ascribe the difference in nonmarital births between, say, a middle-income woman and a welfare-eligible low-income woman to the AFDC program.

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[1] Each state sets its AFDC benefit level. In 1994 the maximum benefit ranged from $903 in Alaska to $120 in Mississippi, for a family of three.

Method 5. Intuitively, it also seems reasonable to compare nonmarital childbearing of women who are actually receiving welfare benefits and nonmarital childbearing of women who are not. However, this comparison is rarely made in published research studies because it is even more difficult to control for differences between the women besides welfare receipt. Thus, it would be nearly impossible to determine how much of their difference in childbearing was due solely to the receipt of AFDC. Furthermore, all unmarried women on AFDC, by definition have had at least one child, unlike unmarried women not receiving AFDC. Thus, while second- and higher-order birth rates might be compared with this method, first-birth rates cannot.

Method 6. The effect of welfare on nonmarital childbearing can be directly addressed by an evaluation of state waivers and demonstrations which alter benefits for childbearing, such as family caps that eliminate additional benefits for additional children born on welfare. Unfortunately, these changes are too new and too recent for complete evaluations to have been conducted. Even analyses of the New Jersey family cap, which have been publicized more than any other, are based upon extremely preliminary evidence (the most recent study shows no effect of the cap on childbearing). Therefore there is little evidence of this type to report on at this time.

## The Effects of Welfare on Nonmarital Childbearing--a Summary of Findings

Table 1 shows a list of the studies that have been conducted to date on the effect of welfare on nonmarital childbearing. To avoid unnecessary detail, the table only summarizes the major characteristics and finding of each study.

Only the first three studies in Table 1 compare trends in nonmarital childbearing over a period of time with trends in welfare benefits (i.e., Method 1) over the same period of time. The basic fact, as Figure 1 shows, is that nonmarital childbearing and real benefit levels (adjusted for inflation) moved in the opposite direction over the 1970s and 1980s. That is, while nonmarital childbearing was increasing, real AFDC benefit levels were actually falling. Few studies have been able to reconcile this finding with the hypothesis that the increase in nonmarital childbearing is due to changes in the welfare system.

The Cutright (1970) and Winegarden (1988) studies in Table 1 do not deal adequately with this problem. Cutright's study only examined data up through 1966--before the decline in welfare benefits occurred. Winegarden made an inadvertent error in his analysis, correlating nonmarital childbearing with AFDC participation rates over time instead of with welfare benefits. Since AFDC participation rates rose in the late 1960s and nonmarital childbearing rose in the 1970s, Winegarden finds a positive effect of welfare, but only because he used the incorrect variable in his analysis (i.e., past AFDC participation rates instead of the AFDC benefit level).

Only Murray (1993) offers a knowledgeable explanation of how the level of nonmarital births could be affected by welfare benefit levels even though they have moved in opposite directions He points out that nonmarital childbearing might respond slowly to increases in welfare benefits--that is, there might be a long "lag" between the time an increase in benefits might have an impact on actual behavior. This hypothesis would imply that current increases in nonmarital births are the result of much earlier increases in benefits. However, Murray notes that the interpretation of such time series analysis is inherently ambiguous and "can produce conflicting results" (Murray 1993: p.S246).

Most of the studies shown in Table 1 instead make cross-state comparisons between the probability that a woman has a nonmarital birth and the welfare benefit in her state of residence (Method 2). About half of the studies find the level of welfare benefits have no effect, or a negative effect, on nonmarital childbearing, and about half find it has a positive effect for at least some subgroups of the population.

One of the notable findings across the studies is that to the extent studies find that welfare does appear to have a positive effect on nonmarital childbearing, this effect occurs more often for white women than African American women. Murray (1993) provides the clearest possible explanation for the source of the difference. He shows that, for whites, nonmarital childbearing rates are low in the South but high elsewhere; since welfare benefits are also low in the South, this results in a positive association between the two. But for African Americans, nonmarital childbearing rates are highest in the South, just the opposite. This suggests that cross-state differences in the nonmarital childbearing rates of African Americans must be due to something other than welfare benefits. Several researchers have speculated on why this racial difference arises, but none provide a full analysis or explanation.

It is difficult to assess why a few studies do find a positive affect of welfare benefits among African Americans. For example, a study by Fossett and Kiecolt and a study by Ozawa appear to use the same methodology and measure the same outcome measure--the percent of births in each neighborhood that are nonmarital. Yet, Fossett and Kiecolt find positive effects among African Americans while Ozawa does not. The reason for these mixed results must be considered an unresolved puzzle worthy of further investigation in the future.

Although it is difficult to determine exactly why some studies find that welfare benefits have a positive effect on nonmarital childbearing and others find it has no effect or even negative effects, examination of the individual studies suggests that one major difference across them is the degree to which they attempt to control for individual differences and state-level influences on nonmarital childbearing other than welfare benefits. As noted previously, the validity of cross-state comparisons depends strongly on an adequate adjustment for differences between women in addition to differences in the amount of welfare benefits they receive.

Duncan and Hoffman (1990), for example, attempt to control for differences in women's labor market opportunities, and even for differences in the labor market opportunities of potential male marital partners. If labor market opportunities are poorest in the South, for example, this could explain the higher nonmarital childbearing rates there rather than welfare benefits. Schultz (1994) and Lundberg and Plotnick (1995) similarly attempt to control for labor market differences. Ellwood and Bane (1985) go the farthest in this direction, controlling for a large number of state characteristics, even including characteristics of their political systems. On the other hand, Murray (1993), in an intentional effort to keep his analysis simple and easy to understand, does not adjust for any other differences between women or across states besides welfare.

Roughly speaking, the more adjustments a study makes for these "other" differences between states and between different women in the states, the lower the estimated effect of welfare on nonmarital childbearing per se. This suggests that some of the studies finding that welfare has a positive effect on nonmarital childbearing (Murray 1993, for example) do so because they are actually capturing the effect of other factors that they have not adjusted for. Nonetheless, several well-executed studies do find that welfare has some effect on nonmarital childbearing, even after netting the effects of other variables (Lundberg and Plotnick, for example). Consequently, it is fair to conclude that the studies using Method 2 to conduct their analysis do provide some evidence that welfare has a positive effect on the nonmarital childbearing for white women.

However, it is important to note that while some studies find positive estimated effects of welfare on nonmarital childbearing, the magnitudes of the effects are not large relative to current high levels of nonmarital childbearing.

For example, Hill and O'Neill (1993) find that a $100 reduction in the monthly welfare benefit would lower the nonmarital birth rate among young white women by only four percentage points; and Fossett and Kiecolt (1993) find that the same-sized benefit change would lower the percent of births among African American women that are nonmarital by the same degree, four percentage points. These effects are not large enough to lower nonmarital childbearing very far below its current level. In addition, the effects of other factors, such as the availability of employed men (see Duncan, this volume) appear to be quite large relative to these welfare effects.

Three recent studies have compared changes in different states in nonmarital childbearing with changes in their welfare benefit levels (Method 3). Only one of these studies , Clarke and Strauss (1994), found some evidence of positive effects of welfare on nonmarital childbearing. The other two, Ellwood-Bane and Jackson-Klerman, found no effect.

Part of the explanation for the difference between these research findings may again arise from differences in the degree to which the studies made adjustments for other state differences. Clarke and Strauss (1994), for example, make almost no adjustments for other cross-state differences, and their study finds one of the largest estimated effects of welfare on nonmarital childbearing. The other two studies (Ellwood-Bane and Jackson-Klerman) controlled for many other differences and found no effect of welfare. In addition, the study by Jackson and Klerman (1995) examined childbearing not only among unmarried women but also among married women. They found that while states with faster benefit growth have higher growth rates of nonmarital childbearing, they have equally high growth rates of marital childbearing. Thus, there may have been an additional, unmeasured factor, that was causing fertility in general to rise in particular states. Jackson and Klerman conclude that these contradictory findings make the interpretation of any correlations between welfare and nonmarital childbearing based on Method 3 extremely ambiguous.

Only Ellwood and Bane (1985) compared nonmarital childbearing levels of eligible and ineligible women within states (Method 4). They found no association between AFDC benefit levels and the relative childbearing rates of married and unmarried women. They also found no association between nonmarital childbearing and a woman's propensity to be on AFDC within the same state. As noted previously, however, these types of comparisons suffer from the danger of an inability to adjust for other differences in nonmarital childbearing between women who are eligible for AFDC benefits compared to those who are not.

Drawing conclusions from these studies is difficult. Several studies have found positive associations between welfare benefits and nonmarital childbearing, albeit mainly for white women, and these studies are generally competent and well-executed. The major ambiguity in the conclusions of the different studies is whether any observed relationship between welfare and nonmarital childbearing is real, or whether it reflects the effects of other unmeasured cross-state differences in the state environment or between individuals. The studies are not conclusive on this point, so we are left with only the suggestion of an effect at present.

### Policy Questions Regarding Welfare Effects

The most important question raised by the studies is why the results differ across them. Some suggestions have been ventured here, but only additional research to reanalyze the data from the studies simultaneously could resolve this question. In addition, specific issues are raised by the studies. For example, one issue is the role of marriage and of men in nonmarital childbearing behavior (see Duncan and see Lichter, this volume). Several studies mention the possibility that nonmarital childbearing is lowered if the level of earning power of potential husbands is higher. Other studies mention the availability of economically attractive potential husbands as a possible factor in nonmarital childbearing decisions (e.g., Fossette-Kiecolt 1993). These concerns raise the question of whether declining rates of marriage are an important neglected factor in explaining time trends in nonmarital childbearing. Indeed, as discussed by Lichter (this volume) and Ventura, Bachrach and Kaye (this volume), marriage rates have declined in the U.S. for several years, and much of the increase in nonmarital childbearing is a result of more women having children outside of marriage instead of inside of marriage.

A related issue concerns whether any effects of the welfare system on nonmarital childbearing reflect instead effects of the system in discouraging marriage. Even though the AFDC-Unemployed-Parent program--which provides benefits to two-parent low-income families --is now present in all states, it is still little used by married families who are poor. This could suggest that the AFDC system still discourages marriage, or that low participation can be attributed to strict eligibility rules and lack of knowledge about the program. If young women have children at young ages at the same rates they have in the past, but are discouraged from marrying the fathers of the children because of the welfare system, this by itself could cause an increase in nonmarital childbearing. This issue needs further study.

The importance of labor market and educational considerations in nonmarital childbearing behavior would also seem to be worth additional investigation given the sensitivity of many of the estimated welfare effects to whether such factors are included in the analysis. The role of declining labor market opportunities for both unskilled men and women, and possible declines in the educational system in low-income communities, may interact with the welfare system in encouraging nonmarital childbearing.

**Table 1. Research Studies on the Effect of Welfare on Nonmarital Childbearing**

| STUDY NAME | TIME PERIOD | RESULTS |
|---|---|---|
| **METHOD 1** | | |
| Murray (1993) | 1940-1988 | Mixed |
| Winegarden (1988) | 1947-1983 | Positive |
| Cutright (1970) | 1950-1966 | Mixed |
| **METHOD 2** | | |
| Cutright (1970) | 1950-1966 | No effect |
| Murray (1993) | 1954-1988 | Mixed, (Positive only for whites) |
| Janowitz (1976) | 1968 | Mixed, (Positive only for African Americans) |
| Duncan-Hoffman (1990) | 1968-1985 | No effect |
| Freshnock-Cutright (1979) | 1969 | Mixed (Positive only for whites) |
| Moore-Caldwell (1977) | 1971,1974 | No effect |
| Ellwood-Bane (1975) | 1975 | Negative |
| Fossett-Kiecolt (1993) | 1979-1981 | Positive (African Americans only) |
| Plotnick (1990) | 1979-1984 | Mixed (Positive only for whites) |
| Lundberg-Plotnick (1990) | 1979-1986 | Positive (Whites only) |
| Lundberg-Plotnick (1995) | 1979-1986 | Mixed (Positive only for whites) |
| Hill-O'Neill (1993) | 1979-1987 | Mixed (Positive only for whites) |
| Acs (1993) | 1979-1988 | Small positive |
| Robins-Fronstin (1993) | 1980-1988 | Mixed (Positive only for African Americans and only for basic benefit, not benefit increments) |
| Schultz (1994) | 1980 | No effect |
| Ozawa (1989) | 1984 | Mixed (Positive only for whites) |
| Moore (1994) | 1990 | Mixed (Positive only for whites) |

**Table 1 (continued)**

| STUDY NAME | TIME PERIOD | RESULTS |
|---|---|---|
| **METHOD 3** | | |
| Ellwood-Bane (1975) | 1960-1970 | No effect |
| Jackson-Klerman (1995) | 1975-1990 | Contradictory |
| Clarke-Strauss (1994) | 1980-1989 | Positive |
| **METHOD 4** | | |
| Ellwood-Bane (1975) | 1970,1976 | No effect |

Notes:

Studies listed in order of Analysis Method and Time Period.

Analysis Method:
1 = Time Trends
2 = Cross-State Comparison of Levels
3 = Cross-State Comparison of Changes
4 = Within-State Comparison of Different Eligibility Types

Results:
"Positive" = positive effect of welfare benefits on nonmarital childbearing
"Negative" = negative effect of welfare benefits on nonmarital childbearing
"Mixed" = some positive, some negative effects found
"Contradictory" = inconsistent pattern of results*

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# How Nonmarital Childbearing is Affected by Neighborhoods, Marital Opportunities and Labor-Market Conditions

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## Introduction

Many people suspect that the nature of welfare programs -- the generosity of benefits, restricting payments to single parent families, "capping" benefits so that women who bear children while receiving welfare are not entitled to additional benefits -- influences a woman's decision to bear children out of marriage. Such suspicions are rooted in a belief that fertility decisions are affected by the larger economic and social environment in which families live. But while a great deal of attention has focused on whether welfare provides incentives to have children outside of marriage, there has been little focus on the costs of nonmarital childbearing and whether these costs affect fertility behavior. These are important questions for policy makers because if a woman perceives she already has limited opportunities, she may perceive less cost to have a nonmarital birth.

What are these costs? What opportunities are forgone if a woman bears a child outside of marriage? For one, certain career paths may be rendered impossible or at least much more difficult if a woman becomes a single parent. In addition, potential marriage partners may be less attracted to a woman with a child fathered by another man. The perilous economic situation of single parents, which limits their residential options to low-income neighborhoods, means that they and their children are less likely to benefit from neighborhood amenities such as good schools, positive role models, safe, drug-free streets, and perhaps a positive neighborhood "culture."

These various costs will differ depending on where a woman lives. But they will also vary from woman to woman. A woman without job-related skills or abilities sacrifices few career opportunities in the event of a nonmarital birth. Furthermore, these costs have changed in recent years. The declining labor-market prospects of low-skilled workers (Levy and Murnane 1992), particularly African American men, have no doubt reduced the marriage-related "costs" of nonmarital births. And neighborhood conditions have deteriorated in many urban areas; as of 1990, one-quarter of all urban African Americans and nearly half of poor urban African Americans lived in neighborhoods with poverty rates in excess of 40 percent -- a threshold commonly employed to delineate "ghetto poverty."

The following pages review what is known about how opportunities and other features of the environment affect fertility decisions. Since the association between nonmarital births, AFDC and other welfare programs is discussed elsewhere in this report (Moffitt, this volume), this review focuses on additional factors. It begins with an assessment of the effects of neighborhood conditions on nonmarital fertility. It next covers what is known about the role played by marital opportunities, then summarizes the literature on the role of labor-market opportunities. It ends with a discussion of the implications of the findings.

### Neighborhood Influences

There are many reasons to suspect that the neighborhood conditions in which adolescents are raised affect opportunities and behavior, including fertility behavior. Theories of neighborhood influences highlight the importance of:

(i) contagion, in which negative behavior is spread throughout a neighborhood through peer interaction;

(ii) socialization, in which positive behavior is encouraged through beneficial adult role models and job connections;

(iii) social control, in which positive behavior is encouraged through monitoring and other "social capital" connections among neighbors;

(iv) institutions, in which higher levels of public services such as schools, parks and police protection promote greater achievement;

(v) relative deprivation, in which the consumption of higher-income residents leads their neighbors to be dissatisfied with their own standard of living; and

(vi) competition, in which classmates from higher-income homes set discouragingly high performance standards (Jencks and Mayer 1990; Furstenberg and Hughes 1994; Sampson and Groves 1989).

The first four of these theories suggest that "better" neighborhoods will promote positive behavior, while the last two imply that better neighborhoods will promote negative behavior, especially if many opportunities are not equally accessible among children from families with low socioeconomic (SES) status.

Empirical efforts to gauge the size of neighborhood effects and distinguish among these competing theories face formidable challenges. Most studies of how neighborhood conditions affect children's development use data that combine information about families with information regarding the neighborhood conditions in which those families reside. The family-level data are typically gathered in surveys, while the neighborhood conditions are generally measured with tract- or ZIP Code-level information drawn from the decennial census or county- and state-level data from a variety of sources.[1] Although providing many measures of income, employment, schooling, public-assistance receipt and housing, census-based sources do not include measures of crime, the quality of public services or social relationships among neighboring families.

A second problem is that a tract or a ZIP Code may be too small or too big to define the neighborhood area most relevant for understanding an adolescent's attainments and behavior. Third, while neighborhood-level influences such as welfare receipt, female-headed households and poverty all have distinct effects, the occurrence of these factors is so correlated that it is difficult to disentangle the separate impacts. For example, if many women who have nonmarital births tended to grow up in neighborhoods with high rates of welfare receipt, those neighborhoods are also likely to have high rates of poverty and it is difficult to say how much of the nonmarital fertility is due to the effect of welfare and how much is due to poverty.

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[1] A tract is a geographic area containing roughly 5,000 persons and is defined by the Census Bureau to approximate neighborhood areas. In contrast, ZIP Codes contain about 18,000 individuals, on average, and are defined by the Postal Service to facilitate mail delivery

Finally, most studies treat neighborhood conditions as though they were beyond the control of families. If unmeasured characteristics of families (e.g., concern for their children's development) influence both neighborhood choice and nonmarital childbearing, however, then what appear to be neighborhood effects are really just family effects.

Brooks-Gunn et al. (1993) provide one of the more complete analyses of neighborhood effects on adolescent nonmarital childbearing among both whites and African Americans. They use data from a nationally representative study of families -- the Panel Study of Income Dynamics -- that has been matched to both tract and ZIP Code-level data from the decennial census. They find that the absence of high-SES neighbors has a much stronger association with teen childbearing than the presence of low-SES neighbors. In other words, it appears that teens are more negatively affected by the lack of positive role models than they are by the presence of bad role models. Also noteworthy in the analysis is that: (I) family influences such as those measured by parental schooling and income levels were generally more powerful than the neighborhood-level influences and (II) adolescents seemed to be more influenced by conditions in their more immediate tract area than by conditions in the broader ZIP Code area. These two findings indicate that conditions in the more immediate family and neighborhood environment appear most influential in behavior that leads to nonmarital childbearing.

Most other studies also find evidence that neighborhood conditions influence nonmarital teen births, although the size and nature of the neighborhood effects differ from study to study. For example, Crane (1991) used matched family and tract data from the 1970 decennial census and found a jump in childbearing between neighborhoods with low and extremely low fractions of workers in high-prestige jobs. These findings support the contagion theory, but since he included only a single indicator of neighborhood quality, it is impossible to distinguish with certainty among the competing explanations for why neighbors matter. Using matched Census data and data on white adolescents from the National Survey of Family Growth, Billy and Moore (1992) also find significant associations between a number of neighborhood-level demographic characteristics and the adolescent nonmarital fertility rate.

Hill and O'Neill (1993) match ZIP Code-level information on the number of public-assistance recipients in the neighborhood to information on a national sample of young adults in the National Longitudinal Surveys of Youth. They also find that neighborhood conditions are a significant factor, showing that neighborhoods containing larger numbers of public-assistance recipients are associated with higher rates of nonmarital births. As with Crane, however, the correlated nature of neighborhood conditions renders it impossible to tell in the Hill-O'Neill analysis whether it is public-assistance receipt itself or its correlates -- e.g., poverty, the absence of institutions and the lack of role models associated with low SES neighbors -- that makes the most difference.

Finally, although linkages between early first intercourse and nonmarital childbearing are indirect, it is useful to note results from two recent studies of the effect of neighborhood characteristics on the timing of first intercourse. Matched data from the National Survey of Family Growth and the decennial census show: (I) earlier intercourse among girls living in neighborhoods with higher concentrations of full-time working women (Brewster 1994); (II) earlier intercourse (both with and without contraception) in neighborhoods with high rates of turnover among residents (Brewster et al. 1993); and (III) earlier intercourse with no use of contraception for girls raised in neighborhoods with larger concentrations of divorced and separated women (Brewster et al. 1993). Although other explanations are possible, these results are consistent with the hypothesis that early sexual activity is affected by a neighborhood's ability to monitor the behavior of its youth.

## Marital Opportunities

There are large differences across race/ethnic groups and geographic locations in the number of possible and desirable marriage partners. Wilson (1987) attempted to measure these opportunities with his "marriageable-pool index" -- a community's ratio of employed men to its women. Although Wilson did not take the additional step of relating this kind of index to either marriage rates or rates of nonmarital fertility, others have, but with decidedly mixed results (see, for example, the review in South and Lloyd 1992).

The economic position of potential marriage partners can influence both the chance of marriage and the distribution of power within the possible marriage. Most theories hypothesize lower rates of marriage among women living in areas with a more limited supply of desirable (e.g., employed) men.

It is more complicated to assess possible linkages to nonmarital childbearing, since this is the result of a sequence of decisions regarding sexual intercourse, pregnancy resolution and marriage. Women with fewer marriage opportunities may be more likely to engage in sexual intercourse, not only because it will enhance their chances of continuing a relationship but also because there are fewer marriage opportunities that would be forgone in the event of a nonmarital birth (Spanier and Glick 1980). A recent study found the timing of first intercourse was significantly affected by the relative supply of men and women for African Americans but not for whites (Billy et al. 1994). However, the direction of the effect for whites was unexpectedly positive -- a larger number of men in the area was associated with earlier sexual activity.

Studies focused on childbearing behavior draw the important distinction between the nonmarital fertility *rate* and the nonmarital fertility *ratio*. The rate is defined as births per 1,000 unmarried women and, at the level of the individual, represents the chance that a woman of a given age will have a nonmarital birth. The ratio is defined as the fraction of all births that occur to women who are not married.

South and Lloyd (1992) and Fossett and Kiecolt (1993) conducted similar and noteworthy empirical studies of these relationships. Both use metropolitan-level data from 1980 on the relative numbers of men and women and the labor market position of both male and female workers to explain nonmarital fertility ratios and, in the case of South and Lloyd, nonmarital fertility rates. The analysis of Fossett and Kiecolt is restricted to African Americans; that of South and Lloyd is done separately by race.

As expected, both analyses find that, for women who give birth, the chance that the birth is within marriage (i.e., the birth *ratio*) generally increases as the supply of men and the earnings or occupational prestige of male workers increase. However, the one study (South and Lloyd) that examines whether the nonmarital birth *rate* is affected by the supply of men finds small effects for whites and no effects for African Americans. Indicators of the labor market position of men appear to be more important than the supply of men in explaining differences in nonmarital birth rates across cities. The higher the male unemployment rate, the lower was the nonmarital birth rate of both white and African American women. Furthermore, among white women, the nonmarital birth rate fell with improvements in the earnings of male workers. It is unclear why the opposite was true for African American women. Nonetheless, the majority of these findings suggest that the "marriage market" does indeed influence nonmarital fertility decisions but the number of available men is less important than the ability of those men to support a family. And while improving the labor-market prospects of men may increase the chances that births occur within marriage, the estimated effects of such improvements on the nonmarital birth rate depend on the measure chosen and the characteristics of the women.

Ku et al. (1993) provide a complementary perspective on these issues by using national-sample data on adolescent males to gauge the relative importance of family and neighborhood-level factors in accounting for fatherhood among young men (as reported by the young men themselves). Among the many neighborhood characteristics they examine (e.g., poverty, racial composition), the only significant predictors of fatherhood are the extent of unemployment and the relative numbers of adolescent males and females. Both greater unemployment and more males relative to females in the neighborhood increase significantly the chances of young men having fathered a child. Although based on a very different methodology, the unemployment result is consistent with that of South and Lloyd in suggesting that labor-market opportunities for men are important in understanding adolescent fertility behavior.

## Women's Labor-Market Opportunities

Theory does not unambiguously predict how enhancing the labor-market prospects of women will affect their nonmarital fertility decisions. On the one hand, better career prospects should raise the opportunity costs and thus lower the incidence of having children, both within and outside of marriage. On the other hand, higher earnings for women increase their ability to raise children by themselves and thus may increase the incidence of nonmarital births.

The studies of South and Lloyd (1992) and Fossett and Kiecolt (1993) mentioned above also included measures of work opportunities for women. These two studies obtained different results, with Fossett and Kiecolt (1993) finding higher nonmarital birth ratios for African American women living in areas with higher-paying jobs. In contrast, South and Lloyd (1992) find this to be the case for whites but not African Americans. It is not at all clear why these two studies would draw such different conclusions from very similar data.

Fortunately, the literature also contains two studies using data on individuals rather than cities, which are much better suited than data on cities for addressing the question of linkages between women's employment opportunities and nonmarital childbearing. The most interesting study, by Olsen and Farkas (1990), uses experimental data from the Youth Incentive Entitlement Pilot Projects to evaluate whether the training and employment opportunities provided by the projects affect the living arrangements and fertility of African American youth. They find that a 10 percent increase in the number of youth working in a program-site area is associated with a six percentage-point reduction in the probability of a birth by age 17.

Another noteworthy study of the effect of labor-market opportunities is that of Haveman, Wolfe and Wilson (1995). Because general labor market conditions do not always reflect the opportunities available to an individual, this study uses an estimation of what each woman's individual earnings potential would be if she has no children as a teen. Although their evidence suggests that labor-market opportunities affect education decisions, they find no indication that such opportunities measured in this way affect nonmarital fertility.

It is not obvious why Haveman et al. reach different conclusions than Olsen and Farkas. Olsen and Farkas look only at disadvantaged African American females; Haveman et al. analyze a national sample that combines both white and African American females. The Olsen-Farkas measure of employment opportunities is short-run and based on a randomized experiment; Haveman et al. use a longer-run measure derived from survey data. The advantages of the experimental nature of the Olsen-Farkas data suggest that more weight be given to its results, but this is clearly a topic in need of additional study.

## Other Studies

Two noteworthy studies of nonmarital childbearing do not fit neatly into the opportunity categories spelled out above. Duncan and Hoffman (1990) model the effects of AFDC benefit levels as well as labor market and marriage opportunities on AFDC-related nonmarital childbearing among African American teenagers. Their measure of non-welfare opportunities consists of a prediction of family income at age 25 if the woman was not a teen mother. Family income consists of the woman's own earnings and, if she is married, the earnings of her spouse. They find that the risk of teen childbearing is significantly lower among women with the highest predicted incomes--i.e. the most to lose from nonmarital childbearing. However, the size of the effect was modest, with an additional $10,000 of age-25 income associated with a reduction in AFDC-related births of two percentage points -- from 25 percent to 23 percent.

Lundberg and Plotnick (1995) focus on the incentives inherent in state policies regarding abortions and contraception. They view nonmarital childbearing as a sequence of decisions regarding pregnancy, abortion and marriage and allow different state policies to affect the corresponding decisions (e.g., abortion funding affecting the abortion decision). They find strikingly different effects of state laws for white and African American adolescents. For whites, pregnancies appear to be affected by contraception laws, while abortions are highly sensitive to state funding and regulations regarding abortions. Estimated pregnancy rates in states with restrictive and non-restrictive contraception laws are 21 percent and 30 percent, respectively, while abortion rates in states with restrictive and non-restrictive abortion climates are 49 percent and 80 percent, respectively. However, these translate into rather small differences in nonmarital birth rates, which for conservative and liberal states are estimated to be 6.1 percent and 7.3 percent, respectively. Surprisingly, none of the policy variables was a significant predictor of pregnancy, abortion or marriage for African American adolescents. This might be attributable to greater data problems for African Americans (who, for example, severely underreport abortions in these data) or to genuine differences in behavior between the two groups of adolescents.

## Conclusions and Policy Implications

Most empirical studies support the hypothesis that decisions regarding nonmarital childbearing are affected by women's opportunities for work and partnerships with men who work, as well as the neighborhood conditions in which the women were raised. Most intriguing is evidence on the importance of men's employment opportunities. Young mothers living in areas in which men have ample labor-market opportunities were generally more likely to bear their children within marriage. In some but not all of the relevant studies the nonmarital birth rate was also lower in areas with favorable labor market opportunities for men. Corroborating evidence from a study of adolescent males suggests that they are less likely to report fathering children if they live in areas with more employment opportunities. These studies tend to show that relative numbers of men and women in a community are less important than is the economic position of the men in affecting the chances that a young woman will bear children outside of marriage. Evidence regarding the effect of women's own labor-market opportunities is mixed, with one study based on data using a control group supporting such linkages. However, a study without the use of random assignment finds no significant linkages.

Studies of neighborhood effects show that, even after adjusting for differences in the family characteristics of women raised in different kinds of neighborhoods, growing up in a resource-rich neighborhood is associated with a lower incidence of both early sexual intercourse and nonmarital childbearing. What neighborhood characteristics matter the most varies from study to study. Early intercourse appears most likely in neighborhoods in which monitoring the behavior of adolescents is most difficult. Nonmarital childbearing is least frequent in neighborhoods with greater concentrations of high-SES families. Whether the greater resources, higher-quality public services, stronger role models or some other feature of more affluent neighborhoods matters the most has yet to be discovered in this line of research.

In sum, the opportunities provided in the neighborhoods and labor markets in which teens and young adults reside appear to be important correlates of nonmarital childbearing. In linking these results to policies, we should take into account the following:

First, these research findings regarding the influence of opportunities on nonmarital childbearing need to be considered in the context of the other research summarized in this volume. For example, even though most studies find statistically significant linkages between neighborhood conditions and nonmarital childbearing, it is far from obvious that neighborhood-based policies will be more cost-effective than family-based policies. Most of the studies of neighborhood effects reviewed here also find that family-level factors such as parental income and schooling are at least as powerful as neighborhood conditions in explaining variation in nonmarital childbearing. Furthermore, although poverty has become more geographically concentrated in the past two decades (Jargowsky 1994), it still holds true that women at high risk of having nonmarital births are sufficiently dispersed geographically that feasible strategies targeted to individual neighborhoods would reach only a small fraction of them.

Second, the apparent importance of labor-market conditions for decisions to bear children outside of marriage makes even more urgent the need to address the problems caused by structural changes in the labor market over the past two decades. Many studies have documented the falling real earnings of younger workers (Levy and Murnane 1992). While most severe for the least skilled, these adverse changes have affected all classes of young adults. Although it is unrealistic and counterproductive to contemplate policies that would restructure the labor market, it is important to realize that policies designed to upgrade the labor-market skills and supplement the earnings or family incomes of young adults may well help to reduce the problem of nonmarital childbearing.

Finally, a cautionary note about the strength of the evidence in the literature we review. With the exception of Olsen and Farkas (1990), all of the studies are based on correlational evidence--that is evidence comparing the fertility-related behavior of women living in different families, neighborhoods and labor markets. Although many use up-to-date statistical techniques to estimate causal models, it is much more difficult to establish causation using nonexperimental data. For example, a higher nonmarital birth rate for women in resource-poor neighborhoods as compared with resource-rich neighborhoods may be caused by the neighborhood conditions, by differences in the family conditions in which the women were raised, or by the institutional or personal factors that caused their parents to live in the resource-poor neighborhoods in the first place.

While there were many welfare-to-work experiments in the 1980s, these efforts only provide experimental data at the level of the family--there are limited experimental data on neighborhood or labor market effects. It is important to note that the Department of Housing and Urban Development has begun an ambitious experiment (called "Moving to Opportunity") that will dramatically change the residential environments of a randomly-chosen set of public-housing families across the country. Such studies constitute our best hope for understanding how environmental conditions affect nonmarital fertility behavior.

**Table 1. Selective Summary of Effects of Opportunity Structure on Nonmarital Births (NMB)**

| STUDY | DEPENDENT VARIABLE/SAMPLE | OPPORTUNITY MEASURE(S) | ESTIMATED EFFECTS (statistically significant unless otherwise noted) | COMMENTS |
|---|---|---|---|---|
| **NEIGHBORHOOD EFFECTS** | | | | |
| Crane (1991) | NMB rate among 16-19-year olds in 1970 census national urban sample | Fraction of adult workers in "tract" holding professional/managerial jobs | Large increase in NMB rate (7% to 20% for African Americans; 1% to 10% for whites) in going from bad to the very worst urban neighborhoods | Data are cross-sectional |
| Brooks-Gunn et al. (1993) | NMB rate before age 20 in PSID national sample | Distinct measures of high- and low-SES families in tract | 1 SD increase in high-SES neighbors drops NMBs from 8% to 5%. Stronger effect for whites than for African Americans. | |
| Billy and Moore (1992) | NMB rate among white adolescents in NSFG-III national sample | Various measures at tract and county level | Various economic and demographic measures were significant predictors of NMBs | Analysis restricted to whites |
| Hill and O'Neill (1993) | Nonmarital first births in NLSY national sample | High (>14.3% of house-holds) receipt of public assistance in ZIP Code | NMB rate 7 percentage points higher in high-welfare areas | No other neighborhood measure included in analysis |
| Hogan and Kitigawa (1985) | Pregnancy rates among 17-19 year old African Americans living in some Chicago neighborhoods | Composite measure based on census tract characteristics | Pregnancy rates decreased by 1/3 in going from low- to middle-SES category | Limited geographic area in sample |
| Brewster et al. (1993) | Timing of first intercourse in NSFG-III national sample | Various measures at tract and county level | Residential instability, more divorced/separated adult women and fewer foreign-born residents associated with earlier intercourse | No other neighborhood measures were significant |
| Brewster (1994) | Timing of first intercourse in NSFG-III national sample | Various measures at tract and county level | More working women in neighborhood associated with earlier intercourse | No other neighborhood measures were significant |

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**Table 1 Continued**

| STUDY | DEPENDENT VARIABLE/SAMPLE | OPPORTUNITY MEASURE(S) | ESTIMATED EFFECTS (statistically significant unless otherwise noted) | COMMENTS |
|---|---|---|---|---|
| **MARRIAGE MARKET/MALE LABOR MARKET EFFECTS** | | | | |
| South and Lloyd (1992) | NMB rate/SMSA-level data | (i) ratio of age-suitable men to women<br>(ii) unemployment rate of age-suitable men<br>(iii) median male earnings | Measure(i) reduces NMB rate somewhat for whites but not African Americans.<br>Measure (ii) reduces NMB rate for young whites and African Americans in most age categories.<br>Measure (iii) reduces NMB rate for whites but increases it for African Americans | SMSA-level data |
| Fossett and Kiecolt (1993) | Ratio of NMB to total births/SMSA-level data on African Americans only | (i) ratio of employed men to women<br>ii) average prestige of male workers<br>iii) percentage of men in labor force | Measures (i) and (ii) reduced NMB ratio for women of all ages<br>Measure (iii) not significant | Examines NMB ratio but not NMB rate; analysis restricted to African Americans |
| Ku, Sonenstein and Pleck (1993) | Whether fathered a live birth or current pregnancy for 15-19 year-old males in National Survey of Adolescent Males | Adult unemployment rate and teen male/female population ratio in neighborhood | SMSA-level data<br>Employment and male/female ratio associated with an increased chance of fathering a child | No other neighborhood measures were significant |
| **FEMALE LABOR MARKET EFFECTS** | | | | |
| Olsen and Farkas (1992) | Childbearing before age 18 in a probability sample of African Americans living in 17 cities and rural areas | Employment rate of 17 year-olds in area | 10% increase in fraction of working youth associated reduces childbearing rate by one-sixth | Data from randomized experiment |
| South and Lloyd (1992) | See above | Median female earnings in area | For whites but not African Americans, higher female earnings increases NMB rate and ratio for women of all ages | See above |

**Table 1 Continued**

| STUDY | DEPENDENT VARIABLE/SAMPLE | OPPORTUNITY MEASURE(S) | ESTIMATED EFFECTS (statistically significant unless otherwise noted) | COMMENTS |
|---|---|---|---|---|
| Fossett and Kiecolt (1993) | See above | (i) prestige of female workers<br>ii) percentage of women in labor force | Measures (i) and (ii) increase NMB ratio for African American women of all ages | See above |
| Haveman et al. (1995) | NMB rate among teenagers in PSID national sample | Individual-specific prediction of earnings if no teen birth | No significant effects found | |
| **OTHER STUDIES** | | | | |
| Duncan and Hoffman (1990) | AFDC-related NMB rate among African American teenagers in PSID national sample | Individual-specific prediction of nontransfer income at age 25 if no teen birth | 25% increase in age-26 income drops NMB rate from 25% to 23% | |
| Lundberg and Plotnick (1995) | Pregnancy, abortion and NMB rates among white and African American teenagers in NLSY national sample | State-level abortion laws, funding and availability; contraceptive laws | For whites, highly significant effects of abortion measures on abortions and of contraceptive laws on pregnancy. For African Americans, no significant effects of policy variables. | |

Notes on table: Where possible, these results on contextual effects are taken from analyses that adjust for differences in family- and individual-level characteristics. "NMB" is nonmarital birth; "SD" is standard deviation; "SMSA" is Standard Metropolitan Statistical Area, which is a way of defining and classifying metropolitan areas in the United States

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# Access to and Utilization of Preventive Services: Implications for Nonmarital Childbearing

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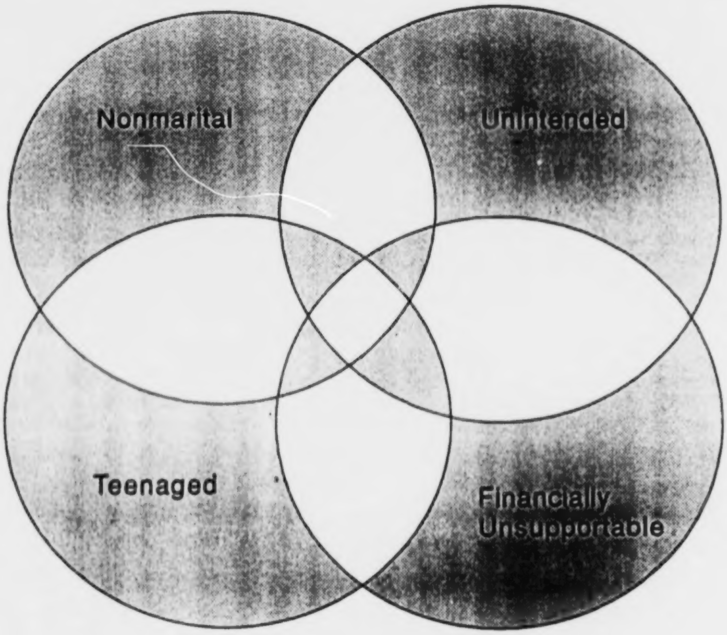
## Introduction

While current policy debate has focused on nonmarital childbearing (a legal status) and prevention strategies, it is important to note that marital status is just one significant factor pertaining to the birth of a child. Other important factors include whether the pregnancy was intended or unintended (a motivational status), whether the parents are able to financially support the child (an economic status) and the age of the mother at the time of birth (a developmental status). The status of each of these categories overlap, as Figure 1 illustrates.[1]

FIGURE 1: FOUR DOMAINS OF CHILDBEARING AFFECTING PUBLIC POLICY



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[1] Since the actual degree of overlap has not been explored precisely, the categories are presented as equal in size and degree of overlap between them. In reality, most teenaged childbearing is unintended, nonmarital and financially unsupportable, but the inter-relationships between these are less clearly documented.

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Because each category implies quite different prevention policy options, it is important to consider the goal of prevention at the outset. Is the goal of policy to prevent births to parent(s) who cannot economically support their children? To people without the emotional maturity to raise their children? To people who have not affirmatively committed themselves to having a child at a specific time? Or to unmarried people regardless of economic circumstances?

The dominant policy goals, as they relate to these factors, appear to be two:

1) Prevent pregnancies to couples who are highly unlikely to be able to support their children financially and in so doing, reduce dependency on public assistance; and

2) Prevent pregnancies to parents who are highly unlikely to be able to provide their children with a nurturing, emotionally supportive, and safe environment.

Thus far, policy debate has focused on nonmarital childbearing because unmarried mothers are less likely to be able to financially and emotionally support their children. However, it is important to note that preventing nonmarital births is not the same as preventing pregnancies to couples who cannot afford children or preventing pregnancies to parents who can't provide a good/safe environment. Much childbearing within marriage is unintended, with respect to both timing and number of children. Some nonmarital childbearing is intentional. Some nonmarital childbearing is financially responsible, just as some marital childbearing is financially irresponsible. Marriage is no guarantee of either intended or economically supportable births.

The dimensions of marital status, age, and intendedness appear to be easily observable proxies for the economic and the developmental dimensions of well-being for both parents and children. Advocates, service providers, and policy makers conclude, based on the evidence, that children born to unmarried women, to adolescents, or without deliberate intention are at higher risk for inadequate parenting and financial hardship (and perhaps public dependency). These conditions, in turn, are expected to reduce the children's life chances, just as their parents' life chances are curtailed by having children to rear before they themselves have matured and established a stable economic and emotional life.

This paper examines a broad range of preventive services, from sex education efforts through family planning services to programs for increasing personal skills and life options. Adoption and abortion services are also discussed briefly. All of these services and programs try to prevent or delay pregnancies until the prospective parents can support their children financially and emotionally. They pursue this goal with efforts to delay the age at which young people begin to engage in sexual activity, to increase the consistent and competent use of effective contraceptives, to enhance the life options of prospective parents before having a child, or, in the event of a pregnancy, to resolve the pregnancy in a way that does not result in an unprepared parent attempting to raise a child.

Who receives preventive services tends to depend upon the type of preventive service being provided. In general, teenagers of both sexes are the primary recipients of sex education. All women of childbearing age are the primary recipients of family planning services. Female teenage parents are the clients in most efforts to prevent second pregnancies. And adolescents of both sexes are often the targets of programs designed to increase personal skills and life options. Except for family planning services, little attention has been paid to prevention efforts for women over the age of 20, despite the fact that they account for 70 percent of nonmarital births (Ventura, Bachrach, and Kaye, this volume) and that 30 percent of never married women have at least one child (Laumann, Gagnon, Michael and Michaels 1994). Even less effort has been made to increase men's commitment to preventing nonmarital or unintended births. This is true despite recent evidence that young men, at least, are increasingly aware of their responsibility for such prevention, and that women's sexual and contraceptive decisions are heavily dependent on male attitudes and cooperation (Sonenstein and Pleck 1994).

## Sex Education

Sex education encompasses instructional activities that usually are undertaken in school settings. Sex education may range from a few class hours devoted to explaining human anatomy and "where babies come from" through descriptions of the range of contraceptive options, to whole-semester courses that include training in the interpersonal and decision-making skills needed for discussions of sexual behavior in couples. These activities may be available only once in a youth's school career, may form a component of several different courses (i.e., health, biology, family life) so that a youth may be exposed to the material more than once, or may be embedded in a multi-year, explicitly-planned, cumulative curriculum that starts in grade school and extends throughout high school. Some sex education curricula have stressed abstinence and convincing youth to delay sexual activity. This message may be delivered by itself, or in conjunction with information about effective contraceptive use. (See Ooms, this volume for a more extensive description of sex education.)

Youth of both sexes participate in sex education. Some states require all youth to receive sex education in some form; most states include sex education as part of elective classes. Model or demonstration curricula or programs based on learning and psychological theories also have been developed for both school and non-school settings, but are not widespread (Moore et al. 1995; Ooms, this volume).

*Access.* For the most part, school-based sex education is not offered early enough to influence the youth most at risk of pregnancy, who may initiate sexual activity as early as age 12 or 13. This means youth need age-appropriate sex education information and decision-making/interpersonal skill development as early as 6th, 7th and 8th grades, not in 11th or 12th grades when they are most likely to receive it. In addition, many youth who are at greatest risk of pregnancy have already dropped out of high school by 11th or 12th grade. Further, because sex education is often not a required course offering, many youth who do complete high school still never receive it. Finally, curricula usually cover only the facts of sexuality and contraceptive options, without offering youth opportunities to learn and practice the interpersonal and decision-making skills that are an integral part of the most promising model or demonstration curricula and appear to be needed if youth are to delay sexual activity or negotiate contraceptive use (Moore et al. 1995; Ooms, this volume).

*Effectiveness.* The type of sex education most commonly encountered in American schools increases adolescents' knowledge about sexual behavior and contraceptive options. Some programs have been found to increase *intentions* to delay sexual activity. But effects on behavior, including actual delay of sexual activity, improved contraceptive practice, or reduced pregnancy rates, are found *only* with the model or demonstration curricula and programs that combine information, discussion of reasons for delay or protection, opportunities to practice interpersonal and decision-making skills, and opportunities to understand the risks of even one or two acts of unprotected sex (Moore et al. 1995; Ooms, this volume; Zabin, Hirsch et al. 1988). This means that only a small fraction of American youth have been exposed to effective sex education.

Among other consistent research findings on the effects of sex education are:

1) participation in sex education does *not* increase the likelihood of youth either initiating or increasing their amount of sexual activity (Moore et al. 1995); and

2) programs for youth that focus *solely* on promoting abstinence have no effect on delaying initiation of sexual activity, whereas those that combine a preference for abstinence with information about and

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support for using effective contraception *do* appear to reduce unintended childbearing (Moore et al. 1995).

Unfortunately, research has also quite firmly established that there remain, among both teenage and older persons of both sexes at risk of unintended or nonmarital births, significant levels of ignorance (e.g., about reproductive anatomy and cycles, how and when to use contraceptives, or about the risk of pregnancy), as well as misinformation and misgivings about contraception in general and specific methods in particular (e.g., fear that some forms of contraception will cause cancer or other negative health consequences, not liking the side effects of some methods, or discomfort using some methods) (Adler 1994; American Psychological Association 1995; Blau and Gullotta 1993; Forrest and Henshaw 1983). It also appears true that many people still have difficulty thinking, talking, and negotiating about sexuality and pregnancy risk.

*Data Quality.* The failure of standard school-based sex education courses to promote the delay of sexual activity, improve contraceptive practice, or reduce pregnancy rates is quite firmly established (Moore et al. 1995; Ooms, this volume). Yet, several well-done evaluations (Eisen, Zellman and McAlister 1990 1992; Howard and McCabe 1990, 1992; Kirby, Barth et al. 1991; Koo et al. 1994) support the promise of more comprehensive and intensive demonstration or model curricula. However, these model programs have not been institutionalized on a large scale in many different school districts, so we have no evidence that the positive effects observed in demonstrations could be sustained if implemented on a more widespread scale.

## Contraceptive Services

Medical contraceptive services are offered through private physicians and publicly and privately funded family planning clinics. In addition, non-prescription contraceptive methods are available in drug stores, supermarkets, and other commercial outlets. Female adolescents and adults are the target population for almost all medical contraceptive services; either males or females can obtain non-prescription methods where they are sold. The over 600 school-based or school-linked health clinics target adolescents, but most of them do not dispense contraceptives nor have they had a measurable effect on reducing teenage pregnancies (Kirby, Waszak and Ziegler 1991; Moore et al. 1995). Males are conspicuously absent in most programs that offer contraceptive services. On average, 6 percent or fewer of publicly funded family planning clients are male (Burt, Aron and Schack 1994).

*Access.* About 1 in 4 women most at risk of unintended pregnancy (those who are fertile, sexually active, not pregnant, and not seeking pregnancy) do not use contraceptives. Among these same women, almost half (about 45 percent) have not had a family planning visit within the past year (Levine and Tsoflias 1993). Poor women and very young women are the most likely to have unprotected sex (Brown and Eisenberg 1995; Levine and Tsoflias 1993; Sonenstein, Schulte and Levine 1994).

Access to family planning services is constrained by economic and other practical factors, and by attitudes and cultural factors (Brown and Eisenberg 1995). Many women lack knowledge about where to get services, or lack transportation to services, or fear they cannot access services and maintain their anonymity. These barriers to access are particularly acute for adolescents. Even women who know where to go and can get there often run into bureaucratic impediments in the form of unanswered phones, long waits for appointments, long waits once at the clinic, or requirements such as having a doctor's referral.

Cost can be a major barrier to receipt of family planning services, particularly for near-poor women lacking private insurance (Brown and Eisenberg 1995). Adolescents almost always qualify for free services at publicly funded clinics, where they comprise about one-third of the clients. Women poor enough to be covered by Medicaid can have the family planning expenses they incur at clinics, private physician offices, or other locations covered by this funding source. If they can get to publicly subsidized clinics, women below the poverty line can receive free services and women with incomes up to 250 percent of poverty can pay on a sliding fee scale at clinics funded through Title X. Private insurance policies, for those women lucky enough to have them, often do not cover family planning services because they are classified as preventive (Brown and Eisenberg 1995). The women truly caught in the middle are near-poor women without private insurance, who must pay out-of-pocket for any care they get. Research documents that such women pay just as much for family planning as middle-class women, despite having considerably smaller incomes (Levine and Tsoflias 1993).

Personal or psychological characteristics can also serve as barriers to using family planning services and contraceptives. Lack of knowledge about contraceptives or misinformation about risks affects women's' willingness to use specific contraceptive methods, or any method at all. The behavior and attitudes of one's peers and of one's sexual partner(s) also affect use. Research based on several different "personal accounting" theories documents the tradeoffs and calculations women make when deciding to use contraceptives. Factors women consider when making these calculations include their own comfort with contraceptive methods, their comfort in talking to their partner about contracepting, the disruptiveness of the contraceptive method they are using, their perceived risk of pregnancy, and the problems a pregnancy would cause if it occurred at this time (Brown and Eisenberg 1995).

*Effectiveness.* The effectiveness of family planning programs is usually assessed either by areal analysis or by calculating use-effectiveness rates. Areal analysis examines whether the geographical areas near services exhibit lower pregnancy rates than those far from services or if pregnancy rates are lower in the same areas than before the services existed. Use-effectiveness rates measure whether the contraceptive methods that clients receive from the family planning program are more effective in preventing pregnancies than the method—or lack of method—they used when they first came to the program. No existing evaluations sort out the independent effect of program participation compared to the effect of the contraceptive method received, although many family planning providers serving low-income communities believe that their clients would not become effective contraceptors without the counseling that they receive along with a family planning method.

With respect to data on contraceptive methods, even the best medical contraceptive methods used perfectly will still occasionally fail to prevent a pregnancy. The more accessible non-medical methods (e.g., condoms, spermicide) have higher failure rates, even when used perfectly. Normal use, which is usually not perfectly correct or consistent, results in higher failure rates. Nevertheless, all contraceptive devices prevent more pregnancies than using no method at all, the latter resulting in an 85 percent probability of conception in a 12 month period for sexually active women.

Cost, lack of access and poor motivation are the main barriers to effective contraception, as described above. In recent years, the issue has been further complicated by the spread of sexually transmitted infections, including AIDS. The risk of infection means that for adequate safety, condoms should be used *in addition to* a more effective female method. Since condoms must be used at each act of intercourse, and must involve male cooperation, success at the task of protection becomes more complicated and greater interpersonal skills are needed to achieve it. At the same time, recent data for young men shows a greater willingness to use condoms and higher reports of actual use; concern about AIDS appears to play some role in these changes (Sonenstein and Pleck 1994).

*Data Quality.* The data on most aspects of contraceptive care delivery and effectiveness are quite solid. Access problems have been documented repeatedly, as have the personal, interpersonal, and cultural determinants of contraceptive use. Similarly, contraceptive effectiveness has been assessed under both laboratory and real-life conditions, and failure rates for different methods have been established with reasonable reliability (Brown and Eisenberg 1995).

## Pregnancy Resolution Services

Once a pregnancy occurs to an unmarried woman with no realistic marriage prospects, there are no easy or obviously correct ways to proceed. Other papers of this volume discuss the consequences, for parents and children, of nonmarital childbearing when parents try to raise the child but are unable to provide adequate financial support or an adequately nurturing environment. The remaining two alternatives are for the woman to bear the child but put it up for adoption, or for the pregnancy to be aborted.

Remarkably little research has been done to determine what interventions can successfully influence a woman's pregnancy resolution decision. Under the Adolescent Family Life Act, 29 programs developed counseling aimed at promoting adoption; none have been adequately evaluated (Moore et al. 1995).

Abortion services, by definition, prevent nonmarital childbearing when used by an unmarried pregnant woman. Recent data suggest that two-thirds of the increase in the birth rate to 15-to-17 year-olds in the 1980s, after a period of stability or decline, is due to the *decline* in the abortion rate, while the remaining increase is due to an increase in the pregnancy rate (Ku 1995). Further, the proportion of pregnancies to all unmarried women aged 15-44 that ended in abortion fell dramatically between 1981 and 1991 (Ventura, Bachrach and Kaye, this volume). This decline in the use of abortion to resolve a nonmarital pregnancy is likely to be a consequence of reduced access due to reduced public funding for abortion, fewer providers, increased harassment of clinics, increased state-imposed regulatory constraints (Althaus and Henshaw 1994; Henshaw 1995; MacKay and MacKay 1995), and, perhaps to a change in attitude toward either abortion or to bearing a child born outside of marriage on the part of women themselves.

## Life Options, Youth and Peer Group Development Programs

Nonmarital childbearing is only one of many outcomes that result from the high-risk circumstances comprising the lives of many women and the men who father their children. In general, those most at risk for nonmarital parenthood are also at high risk for high school dropout, unemployment, chemical dependency, gang involvement, criminal activity, higher morbidity and mortality, and for long-term welfare receipt. Environmental factors (e.g., high poverty and high crime neighborhoods, peers with high levels of involvement in risk behaviors) and family factors (e.g., parental or sibling drug or criminal involvement, physical or sexual abuse of children or adults in the household, single-parent households) greatly influence the probability that a youth or young adult will experience these negative outcomes (American Psychological Association 1995; Resnick and Burt, forthcoming).

Avoiding pregnancy takes determination, and determination grows from a perception that one has other goals which a pregnancy would jeopardize (Zabin 1994). In the neighborhoods with the most nonmarital childbearing, many women cannot envision any other realistic goals for themselves. On the other hand, in even the worst neighborhoods, resiliency factors help people to overcome their circumstances. Important resiliency factors include a consistent and long-term relationship with a caring adult; opportunities for attachment to pro-social activities such as community service, apprenticeships, recreational or work opportunities; intelligence; and, an outgoing personality (Resnick and Burt, forthcoming; Resnick, Burt, Newmark and Reilly 1992).

Knowledge of the importance of life goals and of the effects of resiliency factors has prompted some programs to try to adopt a preventive strategy that gives youth access to some alternative goals and provides or strengthens resiliency factors. These programs try to lower the risk for childbearing and other risky behaviors such as school dropout or alcohol or drug abuse by offering youth an alternative future with sufficient appeal to counterbalance the negative forces at work in the youths' environment, and caring adults with whom the youth can form attachments. These programs try to increase life options, foster positive development, and create pro-social peer groups through a variety of mechanisms, including: mentoring; sponsoring artistic, sports and recreation activities; sponsoring moneymaking, skill building and entrepreneurial activities; helping with schoolwork; offering training in interpersonal skills and conflict resolution; promoting community service and enrichment; arranging for work experiences; and, in some instances, offering significant cash incentives to complete school without experiencing or causing a pregnancy. Their design stems from assumptions about the benefit-cost calculations that youth make when faced with decisions to engage in risky behavior. The programs try to shift that calculus by giving youth the opportunity to create something promising for the future that they do not want to lose (Dryfoos 1990; Moore et al. 1995; Ooms, this volume).

*Access.* Very few youth have access to these programs, as they tend to be special demonstrations or special programs which exist in just one or a few sites around the country. By their very nature as youth programs, adults at risk of nonmarital births do not have access to these programs and no parallel programs exist that are targeted toward adults.

*Effectiveness.* As demonstrations, some of these programs appear quite promising. The elements of those programs with the greatest promise appear to be:

- comprehensiveness (addressing many developmental and recreational needs as well as remedial ones);
- continuity (staying with youth over several years);
- connectedness (to peers and adult mentors/role models, and sometimes to family members);
- building for a future (through education, job readiness, entrepreneurial skill building); and
- buffering (involving enough youth to create an alternative peer group that can support each member against the pressures of their environment) (Dryfoos 1990; Resnick, Burt, Newmark and Reilly 1992).

It is important to realize, however, that none of these programs have been implemented on a large scale. Were that to happen, they risk following the course of many other promising demonstrations, namely, being diluted beyond any capacity to replicate the original results. The lesson to be learned from these demonstrations is that turning around the lives of high-risk youth is not a short, easy, or inexpensive proposition, but it can be done.

***Data Quality***. Most youth development or expanded life options programs have not been rigorously evaluated, and therefore can supply only anecdotal evidence of their effectiveness. Participants are often self-selected, there are no control or comparison groups, and interventions are loose and varied enough that even if effects are observed, it is hard to say what might have caused them. However, a few promising programs have received quite rigorous evaluations, with the results reported above. Programs of this type should be the subjects of more extensive and more sophisticated evaluation.

## Policy Implications

What do we know about access to and utilization of preventive services? What do we *not* know, where more research would be useful? And what policy implications can we draw from what is known and not known?

This paper began with the basic question of what are we trying to prevent. If prevention of nonmarital childbearing is the goal, regardless of the age or economic circumstances of the mother, then the review just concluded makes clear that practitioners, policy makers and researchers alike have concentrated their attention on female teenagers and have almost completely neglected the adult women who contribute 70 percent of these births. Further, they are only beginning to develop services and research findings relevant to the males who are equally responsible for these births. Existing analyses do not look at the data using the right categories of age, marital status, and economic circumstances, in part because the data have not been analyzed with this focus, and in part because data is frequently not collected in a way that lends itself to this type of analysis. Further, neither services or research have focused on the unique needs or means of reaching adult men or women. If we want to make any serious difference to the rates of nonmarital childbearing, these deficiencies need to addressed and corrected.

## Sex Education

We know that most forms of sex education in the United States convey too little information, often do not cover critical information such as contraceptive use, and do not reach the most at-risk children early enough to catch them before they initiate sexual activity. We know that policy and research attention has not focused on ways to present the same information to adults who need it. We know that sex education curricula *can* be developed for youth that cover the necessary information, instill the necessary attitudes, and reduce the risk of nonmarital childbearing because model curricula in this country and standard curricula in other industrialized countries have demonstrated this ability. We do not know if the same holds true for adults. Due to local control in this country over school curricula, and controversy in many communities about who should convey sexual information to children and what information should be conveyed, most youth in this country do not have the opportunity to learn what they need to know in school, and often do not receive any reliable information from their parents (Tanfer 1994).

Additional research would be extremely useful to accomplish the following goals: 1) demonstrate the usefulness of model curricula with diverse ethnic, racial, class, and cultural subgroups among youth; 2) document how the most effective model curricula and programs for youth could be applied on a large scale while still retaining their effectiveness; and 3) develop and test sex education dissemination strategies for adults most at risk of nonmarital childbearing. However, issues of access to and use of *effective* sex education for youth must be resolved primarily in the policy making arena.

## Contraceptive Services

We know that contraceptives work to avert pregnancies and that the women most at risk of unintended, unwanted, and/or nonmarital pregnancies often have limited access to effective contraception due to cost, lack of services available and lack of motivation. We know that these factors are true for both adolescent and older women at risk. We know that males are only rarely recipients of family planning services.

We do not know what the effects of contraceptive counseling might be, over and above the effectiveness of the contraceptives themselves; given the likelihood that oral contraceptives will probably soon be available for over-the-counter purchase; this would be an important area for research. We can be reasonably sure that universal access to medical care through national health services in other industrialized countries, coupled with better sex education and less ambivalence about sexual behavior, helps explain the lower rates of *unintended* pregnancies and births in these countries (although *nonmarital* births have been rising in these countries as well). Based on current knowledge about the effectiveness and use of contraceptives, the policy implications are that to avert more unintended births (both nonmarital and marital), contraceptive services need to be made more available and more accessible through publicly supported services, mandatory coverage by private insurance, inclusion in managed care plans, and assistance with the costs of contraception.

## Pregnancy Resolution Services

We suspect that reduced access to abortion services in recent years accounts for much of the decline in the use of abortion by unmarried pregnant women, and we can be reasonably sure that the decline in the proportion of nonmarital pregnancies ending in abortion has contributed to the increase in nonmarital births during the same period. This reduced access has resulted from public policy decisions; therefore it is likely that the increase in nonmarital births could be reversed if access were increased. Remarkably little research has focused on what can be done to influence the pregnancy resolution decisions of a pregnant woman.

## Life Options/Youth Development Programs

We know that environment, family, and peer factors greatly influence the behavior of those most at risk for nonmarital childbearing. We know that it takes determination to avoid pregnancy, and that environmental, family, and peer pressures may make it difficult to develop that determination or may routinely undermine it. The weight of the research evidence is beginning to suggest that when youth are given better options, together with the chance to bond with supportive adults and the necessary interpersonal negotiation skills, they can develop the determination and avoid pregnancy.

More research is certainly needed to document the long-term effectiveness of various program models, and to understand the resources and program intensity needed for youth at different risk levels. But it is already reasonably clear that significant resources and a multi-year commitment (through high school) are needed to affect the life choices of the youth most at risk for long-term dependency and other negative outcomes of high-risk behavior. The costs of *not* making this investment, however, are clearly high in terms of public health, education, welfare and criminal justice costs, and parental and child well-being.

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# Attitudes, Values, and Norms Related to Nonmarital Fertility

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## Introduction

Marriage and childbearing are complex processes and events that are interrelated with many other dimensions of life. The bearing of children involves a multitude of actions and decisions interrelated with issues of sex, contraception, abortion, and intergenerational relationships stretching across a lifetime. Similarly, marriage is a broad institution involving courtship, sexual relations, co-residence, economic interchanges, gender relationships, and the potential for dissolution into divorce.

In every society there is a collective set of rules or norms that tell people how they ought to conduct various aspects of their lives, including marriage and childbearing. While these normative systems are frequently tolerant of a range of behaviors, they include sanctions for those who stray beyond the accepted limits (Marini 1984; Klassen et al. 1989). Also, as individuals grow up they internalize values, attitudes, and beliefs concerning family and personal issues. Both collective norms and individual values and attitudes define the meaning, behavior, and sentiment associated with marriage and childbearing.

This paper considers trends in attitudes, values, and norms related to nonmarital childbearing, examines recent levels of these attitudes and values, and discusses how these matters are related to the legal system, religion, the mass media, age, generation, gender, ethnicity, and educational attainment. Since earlier papers in this report describe the behavior of people, this paper will be limited to a discussion of what people think and believe.

## Trends and Levels of Attitudes, Values, and Norms Related to Nonmarital Childbearing

The lack of reliable longitudinal data prevents the systematic documentation of marital and childbearing norms, values, and attitudes prior to the second half of the twentieth century. However, recent data reveal fundamental shifts in values, attitudes, and norms concerning a wide range of family issues, including marriage, sexuality, and childbearing. In the second half of the twentieth century there has been a dramatic expansion of the range of individual choice and a relaxation of the social prescriptions and proscriptions for many dimensions of family and personal behavior. There has been a substantial and widespread weakening of the normative imperative to get married, to stay married, to have children, and to maintain separate roles for males and females. In addition, attitudes and norms prohibiting abortion, premarital sexual relationships, and childbearing outside of marriage have dramatically receded. Thus, many behaviors that were previously restricted by prevailing social norms and personal attitudes have become accepted by substantial fractions of Americans (Thornton 1989; Cherlin 1992; Pagnini and Rindfuss 1993; Schulenberg et al. 1995; Hayes 1987).

The trends in attitudes toward marriage, premarital sex, cohabitation, and nonmarital childbearing suggest that norms and values concerning marriage, intimate relationships, and childbearing have been restructured in important ways. It has become more acceptable in recent decades to have sexual relationships before marriage, to cohabit without marriage, to bear children outside of marriage, to obtain an abortion, to go through life without marrying, to obtain a divorce, and for women to pursue careers outside the home. And yet, while social norms have weakened and there is more tolerance for previously proscribed behavior, the shift towards acceptance of premarital sex, unmarried cohabitation, nonmarital childbearing, abortion, never marrying, and getting divorced does not mean that these behaviors are now widely endorsed or viewed as positive goals to be reached (Thornton 1989).

## Marriage

Marriage has become less central in defining intimate relationships between women and men, in regulating living arrangements, and in organizing childbearing and intergenerational relationships. In the past marriage was necessary for "legitimizing" childbearing, co-residence of men and women, and, to a somewhat lesser extent, sexual relationships. Today, however, marriage is infrequently seen as a requirement for sexual expression, is often viewed as unnecessary for cohabitation, and, among an increasing minority, is evaluated as unnecessary for childbearing.

The rejection of the necessity to marry can be illustrated by the fact that only about one-third of young people agree with the statement that "it's better for a person to get married than to go through life being single" (Thornton 1989; Bumpass et al. 1991). Only about a quarter of young people indicate that they would be bothered a great deal if they do not marry (Thornton and Freedman 1982). In addition, young people feel little pressure from their parents to marry (Bumpass et al. 1991; Thornton 1989).

At the same time, young people do not endorse being single over marriage; this is illustrated by the fact that only about one-sixth indicate that "there are more advantages to being single than to being married." Similarly, nine-tenths of all high school seniors say that it is quite or extremely important that they have a good marriage and family life (Thornton 1989). Most young people also expect to marry (Thornton and Freedman 1982; Moore and Stief 1991; Sweet and Bumpass 1990a). It thus appears that most young people continue to value marriage, but at the same time reject the idea that marriage is a social or personal necessity.

## Having Children

Large numbers of young people currently seem to reject the normative imperative to have children. For example, less than forty percent feel that "almost all married couples who can ought to have children" (Thornton 1989). Less than a third of young people believe that "it's better for a person to have a child than to go through life childless" (Bumpass et al. 1991). Only about one in five adults say that "a woman has to have children in order to be fulfilled (Inglehart 1994). Yet, over four-fifths indicate that it is fairly or very likely they would want to have children themselves (Thornton 1989; Marsiglio 1993).

## Marital Dissolution

Divorce is widely accepted as part of American life today. About four out of five young people believe that marital dissolution is acceptable when there are children in the family and the parents do not get along (Thornton 1989). More than two in five believe that "it should be easy for unhappy couples to get a divorce" (Moore and Stief 1991). Only about one in five American adults believe that "divorce is never justified" (Inglehart 1994).

At the same time that divorce is widely accepted, it is often viewed in negative terms. More than three-fourths of young Americans believe that "unless a couple is prepared to stay together for life, they should not get married" (Moore and Stief 1991). Three-fourths of adults also believe that "marriage is a lifetime relationship and should never be ended except under extreme circumstances" (Sweet and Bumpass 1990b). There is also a strong belief that children do better with both parents and that divorce can cause substantial problems for children (Moore and Stief 1991; Inglehart 1994). So while divorce is widely accepted, only about one-third of young people believe that it "is usually the best solution when a couple can't seem to work out their marriage problems" (Thornton 1989).

## Premarital Sex

Premarital sex seems to be widely accepted among young people. Approximately four out of five adults under age 30 believe that sex relations before marriage is wrong only sometimes or not wrong at all; only about a tenth believe it is always wrong (Thornton 1989; also see Zelnik et al. 1981). A recent study divided American adults into three broad categories concerning their attitudes about sexual expression (Michael et al. 1994). The first group, about one-third of the adult population, followed the norms of the past in believing that nonmarital sex is generally wrong. More than two-fifths of American adults suggested that marriage was not necessary for sexual expression but that sex should only be part of loving relationships. Another one-quarter thought that sex did not need to be restricted to loving relationships.

Widespread acceptance of premarital sex is substantially lower when the unmarried persons involved are teenagers. About three-fourths of American adults under age 30 and six-sevenths age 30 and older believe that sex relations for unmarried teens between the ages of 14 and 16 is always or almost always wrong (Thornton 1989). When attitudes toward premarital sex for teenagers are examined in more detail, we find a gradient in social acceptability by the age of the teenager involved. While seven of eight Americans in their late teens and early twenties agree that "it is wrong for someone who is 14 to 15 years old to have sex before marriage," only about one half indicate that it is wrong for unmarried teenagers who are 16 to 17 years old (Moore and Stief 1991).

## Nonmarital Cohabitation

Acceptance of premarital sex also extends to living together without marriage. While responses vary according to how the question is phrased, at least three-fifths of all young people express acceptance of nonmarital cohabitation (Thornton 1989; Sweet and Bumpass 1990a). In fact, one-half of all young people believe that "it is a good idea" or makes "a lot of sense" to live together before marriage (Schulenberg 1995; Moore and Stief 1991). Less than one-fifth express strong moral disapproval toward nonmarital cohabitation (Thornton 1989; Moore and Stief 1991).

## Use of Contraception

Contraception is widely endorsed in the United States today. Five-sixths of Americans age 30 and over and nine-tenths of Americans between the ages of 18 and 39 believe that birth control information should be available to teenagers (Thornton 1989). Also, 95 percent of male teenagers believe that "if a young man does not want to have a child, he should not have intercourse without contraception." Even higher percentages say that "before a young man has sexual intercourse with someone, he should know or ask whether she is using contraception" (Sonenstein et al. 1995).

## Nonmarital Childbearing

While childbearing outside of marriage is less accepted than unmarried intimacy and co-residence, there is still considerable tolerance of childbearing without marriage. One study found that more than two-fifths of American adults agree that "it should be legal for adults to have children without getting married;" similar fractions agree that "there is no reason why single women shouldn't have children and raise them if they want to" (Pagnini and Rindfuss 1993; also see Inglehart 1994). Another study found that less than three in ten young adults agree that "single women should not have children, even if they want to." Less than one-twentieth strongly agree with this statement (Moore and Stief 1991). Many young people also perceive that there is significant acceptance of nonmarital childbearing in society; less than three-fifths of teenage women reported perceiving strong condemnation of an unwed mother in society or their neighborhoods (Zelnik et al. 1981).

For many people this general acceptance of nonmarital childbearing seems to extend to their own individual lives. One-third of young unmarried persons agree that if marriage is planned "it would be all right for me to have children without being married;" more than a quarter believe it would be acceptable even if they were not planning marriage (Bumpass et al. 1991). This personal acceptance of nonmarital childbearing is also reflected in the fact that at least one-fifth of female sophomore high school students indicate a willingness to "consider having a child if you weren't married" (Abrahamse et al. 1988).

However, the vast majority of Americans still consider unmarried childbearing to be an unwelcome event under many circumstances. For example, more than three-fourths of young people agree that "becoming an unmarried mother is one of the worst things that could happen to a 16-year old girl;" a similar fraction view unmarried teenage fatherhood in the same way (Moore and Stief 1991). Similarly, nine out of ten teenage males (ages 15-19) say they would be upset if they got a girl pregnant now (Marsiglio 1993; Sonenstein et al. 1995). One study asked a sample of adults how they would feel about a daughter of theirs who had finished her schooling having a child outside of marriage. While about an eighth said they would find it acceptable, just over one-half said they would "accept it but be unhappy about it," and one-third said they would not accept it, even if the relationship with the daughter was "very much strained as a result" (Pagnini and Rindfuss 1993).

There is evidence that sexual experience is highly valued and sought after by at least some young people. One intensive qualitative study reports that among some boys, "sex is an important symbol of local social status" (Anderson 1989). For some friendship groups, the status associated with sexual experience is sufficiently large to produce peer pressure for unmarried young people to be sexually active. While this peer pressure for sexual involvement among teenagers varies across groups, between a tenth and a half of all young people report that they felt peer pressure to have sex during their teenage years (Moore and Stief 1991). Furthermore, despite the fact that most teenage males would be upset if they got a girl pregnant, one-tenth say they would be at least a little pleased if that were to happen (Marsiglio 1993; Sonenstein et al. 1995). About one in five teenage males say that impregnating a young woman now would make them feel like a real man at least somewhat (Marsiglio 1993; Sonenstein et al. 1995).

## Abortion

Abortion is a fiercely controversial issue in America today. Numerous surveys have shown that the great majority of Americans support abortion for at least some reasons. For example, approximately eighty to ninety percent of Americans express acceptance of abortion when the health of the mother is endangered or when the pregnancy was the result of rape (Marsiglio and Shehan 1993; Rossi and Sitaraman 1988; Moore and Stief 1991; Granberg and Granberg 1980; Tanfer and Price-Spratlen 1992; Michael et al. 1994).

A smaller although still sizable proportion--about 40-50 percent--express acceptance of abortion if a couple is poor and cannot afford more children, if the couple does not want any more children, or if the woman is not married and does not want to marry the father (Marsiglio and Shehan 1993; Rossi and Sitaraman 1988; Moore and Stief 1991; Granberg and Granberg 1980; Tanfer and Price-Spratlen 1992). Somewhat higher fractions accept abortion if the woman is sixteen or younger (Moore and Stief 1991).

## Factors Related to Attitudes, Values, and Norms Concerning Nonmarital Childbearing

### Religion

Faith and morals have increasingly moved from the realm of the community to the domain of the individual (Bellah et al. 1985; Roof and McKinney 1987). Religion has become more voluntaristic, less emphasis is placed on obedience, and there is less condemnation and punitiveness toward deviations from religious morals (Caplow et al. 1983; Roof and McKinney 1987). In many respects the religious system of norms requiring certain behaviors and sanctioning deviations from these prescriptions has been replaced by a norm of tolerance, which gives individuals the freedom to choose while requiring those in disagreement with certain behaviors to be tolerant and refrain from censuring actions. In addition, religious organizations have re-examined their historical positions concerning many personal and family matters and have modified many earlier rules (Thornton 1985a).

The norm of tolerance now appears to extend to many personal and family behaviors previously governed by strong moral rules. These shifts in religion, along with changes in the legal system, have weakened the institutional supports for historical norms and values concerning a wide range of family and personal behavior. On average, people with no religious affiliation have higher levels of acceptance of abortion, divorce, premarital sex, cohabitation, nonmarital childbearing, remaining single, and not having children (Sweet and Bumpass 1990a; Granberg and Granberg 1980).

Religious faith and commitment do, however, continue to be significant influences in the family and personal lives of many Americans. These religious beliefs guide the family and personal values, attitudes, and behavior of many. For example, over one-half of adult Americans say that their sexual behavior has been guided by their religious beliefs (Michael et al. 1994).

People with high levels of religious involvement and commitment, on average, express lower levels of acceptance of divorce, cohabitation, premarital sex, unmarried childbearing, abortion, not marrying, and remaining childless (Thornton 1985a, 1985b; Thornton and Camburn 1987, 1989; Axinn and Thornton 1993; Sweet and Bumpass 1990b; Marsiglio and Shehan 1993; Tanfer and Price-Spratlin 1992; Reiss 1967; Rhodes 1985; Lye and Waldron 1993; Klassen et al. 1989; Granberg and Granberg 1980; Szafran and Clagett 1988).

Many of these differentials in family and personal values and attitudes by religious participation are substantial. For example, Sweet and Bumpass (1990b) report that there is a 32 percentage point differential in the disapproval of cohabitation between those who never attend religious services and those who attend once a week or more; the very frequent attenders are also 23 percentage points less likely to approve of premarital sex and 16 percentage points less likely to approve of divorce. The relationship between religiosity and family attitudes and values is probably the result of reciprocal causation between the religious and family domains. That is, religiosity seems to influence family attitudes and behavior while, at the same time, family experiences and values influence religious participation and commitment (Thornton 1985a; Thornton et al. 1992).

Personal and family attitudes and values also vary across religious denominations, although the nature of those differences have changed in recent decades. In the past there were differences between Protestants and Catholics in family behavior and attitudes (Thornton 1985a). Catholics were, on average, less accepting of divorce, had stronger norms concerning the need to have children, and had preferences for larger families. In recent decades these Protestant-Catholic differences have largely disappeared as the behavior and values of Catholics have generally converged to match those of Protestants (Thornton 1985a). In fact, the change among Catholics appears to have been so substantial that Catholics now seem to have somewhat above average acceptance of some previously proscribed behaviors (Greeley 1989 1990; Sweet and Bumpass 1990b).

While Protestant-Catholic differences in attitudes, values and behavior have become less distinctive in recent years, the attitudes and values of fundamentalist Protestants have apparently diverged from those of other Protestants. On average, fundamentalist Protestants now have less positive attitudes than other Protestants toward divorce, remaining childless, cohabitation, premarital sex, abortion, and unmarried childbearing (Thornton 1985a, 1985b; Thornton and Camburn 1987 1989; Axinn and Thornton 1993; Rhodes 1985; Sweet and Bumpass 1990b; Sweet 1989; Marsiglio and Shehan 1993). Mormons also seem to be below the national average in acceptance of many of these previously proscribed behaviors (Rhodes 1985; Sweet and Bumpass 1990b). Jews tend to be more accepting of premarital sex, cohabitation, abortion, and divorce; however, they also appear to place greater emphasis than average upon being married and having children (Sweet and Bumpass 1990b; Granberg and Granberg 1980; Marsiglio and Shehan 1993; Tanfer and Price-Spratlin 1992).

## The Mass Media

The role of the mass media in the lives of Americans has changed dramatically across the twentieth century. The media has become much more extensive, vivid, and graphic with the introduction of movies, television, video cassette recorders, and contemporary music. Television and video cassette recorders have also brought the mass media into the privacy of American homes where they have become predominant forms of leisure, with Americans of all ages averaging many hours of viewing each week (Juster and Stafford 1985; Strasburger 1989, 1995; Greenberg et al. 1993).

Recent decades have witnessed substantial increases in the frequency and explicitness of sexual expression in the mass media (Strasburger 1989, 1995; Greenberg 1994; Greenberg et al. 1993). Content analyses of television programs indicate that sexual behaviors are frequently portrayed, discussed, or joked about in both daytime and evening television (Strasburger 1989, 1995; Greenberg 1994; Greenberg et al. 1993). Since young people consume extensive amounts of television, they see or hear about numerous sexual acts each year on television. The frequency and explicitness of sexual content in the movies and on musical television seem to be even higher (Strasburger 1989, 1995; Greenberg 1994). The overwhelming majority of sexual experience in the media occurs among people who are not married to each other (Strasburger 1989 1995; Greenberg 1994; Greenberg, et al. 1993). Furthermore, sex portrayed in the media rarely occurs in a warm or committed relationship, almost never involves efforts to prevent pregnancy or disease, and hardly ever leads to pregnancy or the contraction of a sexually transmitted disease (Strasburger 1989 1995; Greenberg 1994; Greenberg, et al. 1993).

Mass media exposure and identification among young people have been shown to be related to attitudes and behaviors concerning sex and attitudes and perceptions concerning marriage, divorce, and nonmarital childbearing (Strasburger 1989, 1995; Brown and Newcomer 1991; Peterson et al. 1991; Zillmann 1994; Carveth and Alexander 1985). However, the current available research is unable to establish the cause and effect relationships connecting media exposure to sexual attitudes and behavior. Still, there are good reasons to believe that at least part of this empirical association is the result of mass media exposure affecting sexual behavior and attitudes (Greenberg et al. 1993; Hayes 1987; Strasburger 1989, 1995). Both adolescents and adults acknowledge that television plays an important role in shaping attitudes and behavior (Strasburger 1995; Greenberg et al. 1993; Brown and Newcomer 1991). For example, four-fifths of adults say that television influences values and behavior; two-thirds say that television does not give teenagers a realistic view of sex; and nearly two-thirds believe that television encourages teenagers to become sexually active (Strasburger 1989). Further research is needed to explore this relationship and the possible effect the media's treatment of sex has on actual behavior.

## Legal System

The numerous changes in norms, values, and attitudes which have occurred in recent decades have been accompanied by shifts in the law. In the past intimate behavior was regulated by public morality and formal laws. More recently there has been a shift towards the right of privacy and the non-involvement of the legal system in the private lives of individuals (Schneider 1985). No fault divorce and the extension of the privacy right to cover abortion are examples of this legal trend.

## Age and Generation

Attitudes toward marriage and childbearing vary according to an individual's age and across generations. Compared to older people, the young are more accepting of premarital sexual relations, unmarried cohabitation, nonmarital childbearing, and the idea of never marrying (Bumpass et al. 1991; Michael et al. 1994; Sweet 1989; Carter nd; Pagnini and Rindfuss 1993; Singh 1980; Thornton 1989). Many of these differences are substantial. For example, the percentages of people in their twenties who approve of premarital sex, nonmarital childbearing, and unmarried cohabitation are approximately double the percentages of people in their fifties who approve of the same behaviors (Carter, nd).

The age differences in many aspects of family and personal life seem to be reflected in generational differences within the family. That is, young adult children are more accepting of many previously prohibited behaviors than are their parents. For example, one study shows that whereas about four in five young people in their early twenties approve of premarital sex, their views are shared by only about two-fifths of their mothers. Similar differentials exist concerning unmarried cohabitation (Thornton 1992). Eighty to ninety percent of parents say their "teenagers should be discouraged from having any sexual intercourse whatsoever" (Jaccard and Dittus 1991). Age and generational differences in attitudes toward abortion, divorce, remaining childless, and appropriate roles for women and men are both less clear and smaller in magnitude (Thornton 1989; Granberg and Granberg 1980; Szafran and Clagett 1988).

Many of the attitudes of today's young adults and their parents are similar because the parents themselves have become more accepting of abortion, divorce, and remaining childless over time. For example, about five-sixths of new mothers participating in a study in the early 1960s expressed the belief that "almost all married couples who can ought to have children;" two decades later the fraction of these same mothers expressing this opinion had declined to just over two-fifths. During these same two decades the fraction of these mothers expressing approval of divorce when there were children in the family increased from one-half to five-sixths (Thornton 1989). Thus, while the attitudes of many parents have become more accepting over time, earlier in their lives they were less tolerant. Consequently, on almost all of these family and personal issues the attitudes of today's young people are very different from the attitudes of their parents during comparable periods of the parents' lives.

## Family and Friends

There is evidence that parental attitudes and behaviors influence the behavior and attitudes of children. While the attitudes of this generation are generally less restrictive than those of the last, a comparison across families reveals that children's attitudes toward a range of family and personal matters--including divorce, gender roles, family size, and premarital sex--tend to reflect the attitudes and values of their parents. (Thornton 1992; Axinn et al. 1994; Axinn and Thornton, forthcoming).

The effectiveness of this intergenerational transfer of family and personal values depends upon the quality of relationships and communications between parents and children. Parents with positive relationships with their children seem to be more effective in the intergenerational transmission of values (Weinstein and Thornton 1989; Moore et al. 1986). There is also evidence suggesting that the flow of influences across generations is not unidirectional from parents to children, but also goes from children to parents (Axinn and Thornton 1993).

An extensive array of evidence suggests that adults who have been divorced have substantially more accepting attitudes toward divorce, premarital sex, unmarried childbearing, and cohabitation; they also seem to be less positive toward marriage and large families (Axinn and Thornton, forthcoming; Pagnini and Rindfuss 1993; Klassen et al. 1989; Singh 1980; Sweet 1989; Amato and Booth 1991; Carter, nd). There is also evidence that parental divorce has similar effects on the attitudes and values of children (Axinn and Thornton, forthcoming; Amato and Booth 1991; Miller et al. 1987; Lye and Waldron 1993; Moore and Stief 1991). At least part of the effect of parental divorce on children's attitudes and values seems to occur because divorce changes parental attitudes which, in turn, influence the attitudes of children (Axinn and Thornton, forthcoming). There is also evidence suggesting that parental remarriage further modifies the attitudes of both parents and children; it seems to provide another impetus towards acceptance of premarital sex, cohabitation, and divorce, while ameliorating the negative influence of divorce on attitudes toward marriage and family size (Axinn and Thornton, forthcoming).

An emerging body of research suggests that the attitudes and behavior of young people are related to the behavior of their siblings (Axinn et al. 1994; East and Felice 1992; Hogan and Kitagawa 1985; Friede et al. 1986; Haurin and Mott 1990; East et al. 1993). This association could be the result of the siblings influencing each other or the result of the siblings being influenced by similar genetic, family, or neighborhood environments.

The intergenerational gap in attitudes toward premarital sex is recognized by the children. One study asked a sample of eighteen-year-olds whether their parents and friends disapproved of young people having sex before marriage. Whereas more than four-fifths of the study participants indicated that their mothers and fathers disapproved of premarital sex, only about a quarter thought their male friends disapproved and just over half perceived their female friends as disapproving (Thornton and Camburn 1987). Another study asked teenage women whether their views on college, careers, premarital sex, making money, and abortion were more like those of their parents or those of their friends. Whereas between three-fifths and three-fourths of these teenagers said that their views concerning college, careers, and money were either more like their parents or like both their friends and parents, only about a third gave similar responses about their views of premarital sex; less than one-half gave similar responses about their views of abortion (Zelnik et al. 1981; Shah and Zelnik 1981). As noted earlier, positive attitudes of peers toward premarital sex can also be transformed from passive acceptance into active pressure toward sexual expression.

A growing body of data suggests that friendship networks also may be important influences on the attitudes, values, and behavior of at least some groups of adolescents (Billy et al. 1984; Billy and Udry 1985; East et al. 1993; Miller and Moore 1990). We know that the sexual attitudes and experiences of young people tend to be related to the sexual behavior of their friends. The potential causal mechanisms that could make attitudes and behavior of friends similar to each other are numerous and include friends selecting friends who are like them, friends abandoning friends who become unlike them, and friends having mutual influences on each other.

## Gender, Race, and Socioeconomic Position

There seem to be differences in the attitudes of women and men concerning various family and personal matters. One important male-female difference concerns premarital sex and unmarried cohabitation, with men apparently having more accepting attitudes concerning both behaviors (Carter, nd; Michael et al. 1994; Moore and Stief 1991; Sweet and Bumpass 1990a; Sweet 1989; Reiss 1967; Thornton 1989, 1992). For example, the percentage of adult men accepting premarital sex and cohabitation is approximately ten percentage points higher than among women (Carter, nd). This male-female differential also extends to pressure of peers to engage in sex as teenagers. Young men are from two to three times more likely than young women to report that their friends encouraged them to have sex during their teen years (Moore and Stief 1991). Note, however, that men and women seem to have similar attitudes toward unmarried childbearing (Pagnini and Rindfuss 1993; Bumpass et al. 1991; Carter, nd; Moore and Stief 1991).

Male-female differences in attitudes and plans concerning marriage, divorce, and childlessness appear to be both complex and sometimes inconsistent across questionnaire items and data sets (Thornton 1989; Bumpass et al. 1991; Carter, nd; Sweet and Bumpass 1990a). Data concerning gender differentials in abortion attitudes are also inconsistent: studies of the entire adult population show few gender differences while studies of young adults indicate that women generally have less restrictive attitudes than men (Granberg and Granberg 1980; Szafran and Clagett 1988; Moore and Stief 1991).

Turning now to ethnic differences, there is a relative lack of information on the attitudes and values of most ethnic groups besides African Americans and the general white population. Concerning African American-White differentials, there appear to be differences with respect to some aspects of family and personal attitudes, but not others. Differences between African Americans and whites concerning values and attitudes about co-residential union formation, either through marriage or cohabitation, appear to be modest in magnitude and dependent upon the wording of the question (Sweet and Bumpass 1990a; Sweet 1989; Carter, nd; Bumpass et al. 1991; Moore and Stief 1991).

At the same time, African Americans appear to want to delay marriage longer than whites; more African Americans than whites also believe that "it's hard for most women to find a man who has a good job and wants to be married" (Moore and Stief 1991). Data also suggest that African Americans are more tolerant of divorce than whites (Moore and Stief 1991). African Americans also seem to be more accepting than whites of premarital sex (Klassen et al. 1989; Reiss 1964, 1967; Staples 1978, 1985; Carter, nd; Moore and Stief 1991; Zelnik et al. 1981) and to place less value on waiting for marriage to initiate sexual experience (Moore and Stief 1991). Recent evidence, however, suggests that this last African American-white difference may apply substantially more to young women than to young men (Carter, nd; Moore and Stief 1991). African American young people also report more encouragement from teenage friends to engage in sexual intercourse (Moore and Stief 1991).

In addition, African Americans tend to be more personally accepting of unmarried childbearing and see their neighborhoods as less condemning of unwed motherhood. African American teenagers would, on average, also be less upset than their white peers if they got a girl pregnant (Pagnini and Rindfuss 1993; Zelnik, et al. 1981; Bumpass et al. 1991; Carter, nd; Marsiglio 1993; Moore and Stief 1991). African Americans also tend to value children highly, seem more desirous than whites of having children sometime in their lives, and have a lower ideal age at first birth (Anderson 1989; Bumpass et al. 1991; Zelnik et al. 1981). There is also a body of evidence indicating that African Americans are less tolerant of abortion than are whites (Szafran and Claggett 1988; Combs and Welch 1982; Granberg and Granberg 1980; Marsiglio 1993; Tanfer and Price-Spratlin 1992; Anderson 1989). However, recent research suggests that this differential in abortion attitudes may be smaller or less general than previously thought (Marsiglio and Shehan 1993).

Socioeconomic position also has been found to be related to a range of family attitudes. The evidence regarding whether higher educational levels are associated with more acceptance of abortion, premarital sex, nonmarital childbearing, and divorce is mixed. While there is a body of evidence suggesting that higher education is related to higher levels of acceptance regarding these types of family and personal matters (Pagnini and Rindfuss 1993; Klassen et al. 1989; Singh 1980; Bumpass et al. 1991; Szafran and Clagett 1988; Granberg and Granberg 1980; Thornton 1985b, 1992; Thornton and Camburn 1987; Thornton et al. 1983), other studies suggest that the effects of educational attainment may not be as strong or consistent as previously thought (Sweet 1989; Sweet and Bumpass 1990a; Carter, nd). Unfortunately, research concerning the effects of education has focused primarily on the amount of education received and there has been little investigation of the schooling process itself. Given the centrality of schools in the lives of children, it would be useful for researchers to look within schools and examine the effects of the school setting and environment on children's attitudes and values.

Conclusions concerning the influence of parental socioeconomic position on children's attitudes are also uncertain. While some research suggests that higher parental socioeconomic positions lead to more accepting attitudes toward previously proscribed behavior, other data suggest either the opposite conclusion or that there is no substantial effect (Thornton 1992; Lye and Waldron 1993; Marsiglio 1993; Marsiglio and Shehan 1993; Reiss 1967; Tanfer and Price-Spratlin 1992). Ethnographic research suggests that the lack of social and economic opportunities in some communities leads to a greater acceptance among young people of unmarried sex, pregnancy, and childbearing (Anderson 1989); however, quantitative evidence suggesting how widespread such effects may be is lacking.

## Policy Implications

Policies related to marriage and childbearing are formulated and implemented at numerous levels, including the individual, family, neighborhood, school, state, industry, and nation. To be effective, policy at all levels needs to take into account the norms, values, and attitudes of the people involved. Reflecting a consensus of opinions and values in the policies of state and national institutions is difficult because of the wide diversity of attitudes and values concerning so many of the relevant issues.

One area of considerable national consensus centers on unmarried teenage sex, pregnancy, and childbearing. The great majority of Americans believe that unmarried teenage sex is wrong and should be discouraged. This suggests that an appropriate policy to strongly discourage sexual activity among unmarried teenagers could receive substantial support from the American public. An even larger majority of Americans are also concerned about unmarried pregnancy and childbearing. In fact, as we have seen, most Americans believe that unmarried parenthood is one of the worst things that can befall a teenager. This concern is translated into widespread support for the idea that teenagers who have chosen to be sexually active should also use contraception. This suggests that there could be strong public support for appropriate policies that encourage contraceptive use among sexually active teenagers. The support of many people for such policies, however, would probably be contingent on strong reassurances that the policies did not at the same time undermine efforts to discourage unmarried teenage sexual expression.

The strong desire of American adults to discourage teenage sex, pregnancy, and childbearing exists alongside the widespread perception that the mass media portrays sex unrealistically and encourages sexual activity among teenagers. This combination of public preferences and opinions would likely provide strong support for appropriate changes in the quantity and quality of sexual material shown in the media.

Another area of considerable consensus centers on the norm of tolerance and the right of privacy for adults. Most Americans today do not recognize a normative imperative for unmarried adults to refrain from sex and cohabitation, for all adults to marry and to stay married, and for married adults to have children. This suggests that efforts to institute policies requiring these behaviors in today's society would probably not receive widespread support. Concurrent with the widespread existence of the norm of tolerance and the right of privacy for adults today is the fact that the vast majority of Americans continue to place great value on marriage and family life (Thornton 1989). The great majority plan to marry and bear children. They overwhelmingly want their children and grandchildren to be born into marriages and for those marriages to be characterized by love, stability, and durability. These values suggest that there would probably be widespread support for appropriate policies to encourage and support happy and durable marriages and the bearing of children within those marriages.

Another policy issue concerns the possibility of future changes in behavior, attitudes, values, and norms related to nonmarital childbearing. Here the crucial questions seem to be: will the current behavior, attitudes, values, and norms continue into the future; will the trends of the past few decades continue; will there be reversals of at least some of the recent trends; can public leaders do anything to influence the direction and nature of future trends? Although many social observers tend to believe that current levels or trends will inevitably extend into the future, history suggests that social and family trends can be like economic trends--increasing and decreasing in ways that are largely unrelated to the projections of educated observers. The rate of premarital pregnancy fluctuated in the eighteenth and nineteenth centuries (Smith and Hindus 1975; Vinovskis 1988). At least part of these changes may have been due to the efforts of public leaders to control nonmarital sexuality (Vinovskis 1988).

Recent trends in drug use and attitudes may have some relevance here (Bachman et al. 1988; Bachman et al. 1990). During the 1970s and 1980s marijuana and cocaine use increased and then declined. Accompanying the decline of the use of these drugs in the 1980s was an increased perception that these drugs could be harmful; disapproval of the use of these drugs also increased at the same time. Furthermore, it has been shown that the increases in the perceived risks and disapproval of these drugs can entirely account for the decline in their use. The trends in perceived risks and disapproval of drug use were apparently related to increased knowledge of the consequences of the drugs. While it is not clear that attitudes, values, norms, and behavior related to nonmarital childbearing could change in similar ways, it seems premature to decide that they could not.

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# Risk Factors for Adolescent Nonmarital Childbearing

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## Introduction

Traditionally, most unmarried teenagers who became pregnant were married by the time the child was born and a sizeable minority of unmarried white parents placed their babies for adoption (Furstenberg 1991; Nathanson 1991). These patterns have changed dramatically. Most teen pregnancies now end in non-marital childbearing (over 40 percent) or abortions (over one-third) and adoption is estimated to occur for less than 3 percent of all nonmarital births (AGI 1994 and Bachrach, et al. 1992). Among teens the percentage of births that are nonmarital has risen steeply over recent decades, from 15 percent in 1960 to 48 percent in 1980 and to 72 percent in 1992 (Ventura 1995).

Too often in the policy debate nonmarital childbearing is viewed as synonymous with teenage childbearing. While the extent of unwed parenthood in this age group is great (women younger than age 20 represent 30 percent of all nonmarital births), it is too often forgotten that women over age 20 have the remaining 70 percent of nonmarital births. Still, it is important to focus on teenagers as a high risk population because the likelihood of a mother being unmarried is inversely related to her age; 41 percent of births to mothers ages 20 - 24 are nonmarital, compared to 61 percent of births to 19 year old mothers, and 91 percent of births to mothers younger than age 15 (Ventura 1995). Also, concerns often are expressed that early parenthood, and especially early single parenthood, limits or forecloses future life course options and opportunities such as education, careers, and even other marriage and family choices (McLanahan, this volume; Bachrach and Carver 1992; Hayes 1987; Sullivan 1993).

There is no single factor which can predict nonmarital childbearing for women of any age. In the case of adolescents in particular, multiple behavioral risk factors are often interrelated. This paper begins by describing the environmental and behavioral risk factors for adolescent nonmarital childbearing and concludes by examining relationships between these factors, many of which share the same antecedents. Due to the limitations of existing research, this paper focuses primarily on the experience of adolescent females. Clearly, the lack of similar knowledge about males is a major gap in our understanding. Furthermore, while a parallel analysis of risk factors for those over age 20 would greatly enhance the public policy debate, to date research on interrelated behavior risk factors is not available for women or men in this age group.

## Risk Factors

A complete analysis of risk factors for adolescent nonmarital childbearing must consider at least two major stages: (1) becoming pregnant, and (2) resolving a pregnancy through unmarried parenthood. It is common for researchers to analyze risk factors for even more specific turning points in adolescent pregnancy and parenthood, including having early sexual intercourse, not using contraception, carrying an unintended pregnancy to term, not marrying before giving birth, and not relinquishing the child for adoption (Moore, Miller, Glei, and Morrison 1995; Zabin and Hayward 1993). Analyses suggest that increasing rates of nonmarital sexual intercourse and declining rates of marriage are, relative to other factors, the two most important components of the increase in nonmarital childbearing (Nathanson and Kim 1989). Still, it is useful to consider each specific behavior leading to adolescent nonmarital childbearing, beginning with sexual intercourse.

As shown in the first column of Table 1, many individual, familial, and broader contextual variables are related to the timing of sexual intercourse in adolescence. The research base here includes both males and females, and variables that make early sexual intercourse more likely (indicated by a "+" sign in table 1) are: early pubertal development (Morris 1992), high testosterone levels (Udry and Billy 1989; Halpern et al 1993), being African-American (Brewster 1994; Lauritsen 1994), permissive sexual attitude, use of alcohol, tobacco, and other drugs (Mott and Haurin 1988; Rosenbaum and Kandel 1990), psychosocial deviance (Costa et al. 1995), poverty status (Hayward et al. 1992), living with a single parent (Flewelling and Bauman 1990; Miller et al. 1994; Whitbeck et al. 1994), and sibling and peer sexual activity (East et al. 1993; Haurin and Mott 1990; Rodgers and Rowe 1990). Conversely, sexual intercourse tends to be delayed or less likely (indicated with a "-" sign) among teens with good school grades and high educational aspirations (Ohannessian and Crockett 1993), high religiosity (Halpern et al. 1994; Thornton and Camburn 1989), more educated parents (Hayward et al. 1992), close parent-child relationships (Feldman and Brown 1993; Whitbeck et al. 1992), and those who live in more advantaged neighborhoods (Billy, Brewster, and Grady 1994; Brewster, Billy, and Grady 1993). Researchers have found that traditional school-based sex education is unrelated to onset of sexual intercourse, but more focused skills oriented programs based on social learning and influence theories appear to delay sexual involvement and increase condom use (Kirby et al. 1994; Moore et al. 1995b; Whitehead 1994).

Among sexually active teens, non use (or inconsistent use) of contraception is the major risk factor in unplanned pregnancy (Mensch and Kandel 1992; Moore et al. 1995a). About one third of sexually experienced adolescents use no method of contraception at first sexual intercourse (Mosher and McNally 1991), and about 20 percent say that they never use contraception. Nonuse and inconsistent use of contraception probably characterize at least one third of sexually active adolescents in the United States, resulting in about 11 percent of adolescent females becoming pregnant each year (Ventura, Taffel, and Martin 1995). Adolescents most often use condoms in their initial and early sexual experiences (Pleck, Sonenstein, and Ku 1993), but they shift to the pill as they grow older and establish longer term dating and sexual relationships (AGI 1994). This is important as the pill has a greater rate of effectiveness than condoms.

The research base about male involvement in family planning has been lacking, but has improved substantially in the 1990s (Sonenstein and Pleck 1995). As shown in the second column of Table 1, sexually active male and female adolescents are less likely to contracept, or to use contraception consistently when they are younger (Brewster et al. 1993), if they are African American (Forrest and Singh 1990; Sonenstein et al. 1989), ambivalent about pregnancy (Zabin et al. 1993), use alcohol or drugs (Cooper et al. 1994; Ku et al. 1993; Sonenstein et al. 1989), or live with a single parent or in poverty (Brown et al. 1992; Kahn et al. 1990). Contraceptive use is more likely (or more consistent) among adolescents who do well in school and have future educational plans (Brewster et al. 1993; Luster and Small 1994), have favorable contraceptive attitudes (Pleck et al. 1993), have more educated parents with whom they have a close relationship (Kahn et al. 1990), have siblings and friends who support contraceptive use (Moore et al. 1995a), and who live in more advantaged neighborhoods (Brewster et al. 1993; Grady et al. 1993) where family planning services are more readily available (Moore, et al. 1995a).

Much less is known about male involvement in pregnancy resolution than about male sexual and contraceptive behavior. Researchers who examine adolescent pregnancy resolution report that many of the correlates of abortion and adoption are similar (as shown in columns 3 and 4 of Table 1). Pregnant adolescents who are young are much more likely to have an abortion rather than give birth (Cartoof 1992), or to choose adoption rather than parenthood (Donnelly and Voydanoff 1991). African American adolescents are less likely than whites or Hispanics to choose adoption or to marry (AGI 1994). Doing well in school, having high educational aspirations and more highly educated parents with higher income all are related to resolving a pregnancy through abortion rather than through giving birth (Cooksey 1990; Donovan 1995; Plotnick 1992), and are more characteristic of adolescents who choose adoption rather than parenthood (Resnick et al. 1990). Conversely, living in poverty, and living with a single parent are inversely related to abortion and adoption decisions (Plotnick 1992; Resnick 1992; Serrato 1990). Choosing abortion or adoption are strongly influenced by significant others, especially by mothers (Namerow et al. 1993).

Abortion and adoption pregnancy resolution decisions have some different correlates. Abortion rates are higher in geographic areas with more family planning services (Henshaw 1991) but it is unclear if abortion is affected by parental involvement laws (Blum, Resnick and Stark 1987; Serrato 1990; Worthington et al. 1991). Abortion is less likely among those who are highly religious and more likely when there is a poor relationship with the sexual partner (Cartoof 1992; Yamaguchi and Kandel 1987); research is less clear about whether these factors are related to choosing adoption. Some evidence suggests that adoption relinquishment is negatively related to public assistance and positively related to adoption counseling (McLaughlin and Johnson 1992; Resnick 1992).

Pregnant teens are less likely to marry if they are young, and some research suggests (column 5 in table 1) that marriage also is less likely among pregnant adolescents who are African American, live with a single parent or in poverty, have a poor relationship with their partner, and who live in an area with relatively higher AFDC benefit levels (Lundberg and Plotnick 1990 and 1995; Parnell et al. 1994; Robbins 1991; Serrato 1990; Sullivan 1993). Conversely, marriage is more likely among pregnant adolescents who are religious and doing well in school.

Studies of the antecedents of adolescent nonmarital childbearing per se show that single parent family structure (Bumpass and McLanahan 1989), especially the number of parents' marital disruptions (Wu and Martinson 1992), are positively related to having a nonmarital birth. The younger the age of first sexual intercourse, the greater the likelihood of beginning a family through nonmarital childbearing rather than marriage (Miller and Heaton 1991). Female adolescents with lower self esteem and more traditional views about family and gender roles are more likely to become unwed mothers (Plotnick 1992). Adolescents whose parents have lesser educational attainment (Billy and Moore 1992; Bumpass and McLanahan 1989; Cooksey 1990; Lewis and Ventura 1990) are more likely to become teen mothers. Having a premarital birth is more strongly related to lack of economic and career opportunities than to receipt or amount of AFDC (Duncan and Hoffman 1990).

It is important to note one final influence that cuts across all of these choices. Many female adolescent sexual experiences are coercive (AGI 1994; Gershenson et al. 1989; Moore, et. al 1989; Small and Kerns 1993), and there appear to be important links between coercive sexual experiences and adolescent fertility related behavior (Boyer and Fine 1992; Butler and Burton 1990; Miller et al. 1995). Exacerbating the problem, adult males often are the fathers of children born to adolescent mothers (AGI 1994; Males and Chew 1995). Understanding the role of same age or older males in adolescent pregnancy and childbearing has been relatively neglected until recently. The knowledge base about adolescent male and female sexual behavior is relatively comparable, but much less is known about the contraceptive behavior of adolescent males than females, and males are even less often considered or included in research about pregnancy resolution. This situation is changing, however, toward including males in family planning research and in social policy (Sonenstein and Pleck 1995).

## Interrelatedness of Risk Factors

Research has documented that high risk youth tend to engage in multiple problem behaviors (Dryfoos 1990; National Research Council 1993). In particular, alcohol, tobacco, and drug use; school failure and suspension; delinquency, violence and problems with the police all have been found to be related to early onset of adolescent sexual intercourse (Donovan and Jessor 1985; Graves and Leigh 1994; Jessor and Jessor 1977; Ketterlinus et al. 1992). Recent studies in this area have gone beyond the timing of sexual onset to link adolescent use of alcohol and other drugs with higher risk sexual behaviors, including the number of sex partners and nonuse of condoms or other forms of contraception (Biglan, et al. 1990; Cooper et al. 1994; Ku et al. 1993; Luster and Small 1994). Linkages between problem behaviors are reportedly stronger among whites than African Americans in some studies (Costa et al. 1995; Ketterlinus et al. 1992; Rodgers and Rowe 1990) but school problems, violence, and drug use also are associated with sexual behaviors among poor African American teens (Ensminger 1990). These studies of interrelated problem behaviors are exceedingly important because in general, an adolescent may start with one behavior (usually having less severe consequences) and continue into increasingly risky behaviors (e.g. delinquency and drug use to sexual behavior and pregnancy) (Elliot and Morse 1989; Rosenbaum and Kandel 1990). This suggests that involvement with drugs and other problem behaviors constitute specific risk factors for adolescent sexual activity, pregnancy, and childbearing.

## Research Synthesis and Social Policy Questions

As this review indicates, there is no one factor that leads to adolescent nonmarital fertility. It is exceedingly difficult to synthesize this research evidence, not only because many individual, familial, and broader contextual factors are involved in having a nonmarital birth, but also because the significant variables differ depending on the circumstances of the individual. However, across various studies and subgroups the majority of adolescent pregnancies clearly are unintended (Brown and Eisenberg 1995; Kost and Forrest 1994). Adolescents are more likely to become pregnant if they begin having sex at an early age, partly because they are exposed to risk for a longer period of time, but also because those who begin early are less likely to use contraception effectively, and they also have more sexual partners (Koyle et al. 1989; Seidman et al 1992 and 1994).

Adolescents who are most personally and socially disadvantaged are at greatest risk of becoming unmarried parents. That is, teens who do poorly in school, who have low future expectations, and who come from disadvantaged families and communities are more likely to initiate sex at a young age, are less likely to contracept effectively, and once pregnant, are more likely to bear a child, particularly to bear a child outside of marriage. These teens are the most difficult to reach with prevention and intervention programs, and their delay of sexual intercourse, use of contraception, and choosing abortion or adoption in the event of unintended pregnancy, can involve major obstacles.

How can social interventions most effectively bring about major reductions in adolescent nonmarital fertility? A number of salient policy questions arise from considering the risk factors noted above. What would be the most effective combination of family, school, community, and societal level interventions, and how would they be best articulated? What are the relative difficulties and potential effectiveness of introducing interventions at multiple levels--for example, introducing broad based changes in societal attitudes toward unwed parenthood, as compared with targeting interventions to high risk children and youth? Could intervention programs targeted to high risk children bring about larger reductions in nonmarital fertility if implemented in early childhood rather than in adolescence? If unchanged, does the tendency for adolescents to engage in high risk behaviors continue into adult problem behaviors, resulting in additional (adult) nonmarital fertility? Given the apparent role of social and economic disadvantage in adolescent parenthood, to what extent could nonmarital fertility be reduced by improving opportunities for those with the least access in society? Could less accepting attitudes and less supportive policies bring about reductions in nonmarital childbearing to an extent similar to recent decade declines in cigarette smoking? What role could the media and social policies play to bring about a major shift in public disapproval of nonmarital childbearing?

## Conclusions

This review identifies a number of important points for policy makers.

- Policies must take into account that a large majority of adolescent pregnancies are unintended.
- Social policies and interventions must be directed at multiple stages of this complex problem because adolescents (and those who influence their decision making) respond differently to alternative interventions and constraints. That is, some adolescents can be influenced to postpone onset of sexual intercourse, others will be sexually active but can be influenced to contracept more effectively; and once pregnant, marriage, adoption, or abortion are only options for some but not others.
- To understand the contexts in which adolescent females is make decisions, one must take into account the role of coercive sexual intercourse and, even when consensual, the dynamic of having an older male partner.
- The influence of broader social contexts and opportunity structures on unwed teen childbearing must be considered.
- Future research must expand to fill the gap in knowledge about similar relationships between multiple risky behaviors and nonmarital childbearing for the population of women over 20 and for all men, regardless of age.

**Table 1. Correlates of Behaviors Linked to Adolescent Nonmarital Childbearing.**

| Risk/Protective Correlates | Pregnancy Risk |  | Resolution of Pregnancy |  |  |  |
|---|---|---|---|---|---|---|
|  |  |  |  |  | Parenthood |  |
|  | Sexual Inter-course | Use Contra-ception | Choose Abortion | Choose Adoption | Married | Unmarried |
| **INDIVIDUAL FACTORS** |  |  |  |  |  |  |
| Young Age | - | - | + | + | - | + |
| Early Puberty | + |  |  |  |  |  |
| Testosterone | + |  |  |  |  |  |
| Race (Black) | + | - |  | - | - | + |
| Educational Plans, Grades | - | + | + | + | + | - |
| Religiosity | - |  | - |  | + | - |
| Self-esteem |  |  | + |  |  |  |
| Ambivalence re. Pregnancy |  | - | - | - |  | + |
| Favorable Attitude | + | + | + | + |  | + |
| ATOD | + | - |  |  |  | + |
| Psychosocial Deviance | + | - |  |  |  |  |
| **PROXIMATE SOCIAL FACTORS** |  |  |  |  |  |  |
| Parents Education | - | + | + | + |  | - |
| Family Income |  |  | + | + |  | - |
| Poverty Status | + | - | - | - | - | + |
| Single Parent | + | - | - | - | - | + |
| Family Support, Closeness | - | + |  |  |  |  |
| Sibling/Friend Behavior | + | + |  |  |  | + |
| Parent/Peer Acceptance | + | + | + | + |  | + |
| Poor Relations with Partner |  |  | + |  | - | + |
| **BROADER CONTEXTUAL FACTORS** |  |  |  |  |  |  |
| Neighborhood SES | - | + |  |  |  | - |
| AFDC Benefit Level |  |  |  | - | - | + |
| Employment Opportunity |  | + |  |  |  | - |
| Family Planning Services |  | + | + |  |  | - |
| Parent Involvement Laws |  |  | - |  |  |  |
| School Sex Education | 0/- | + |  |  |  |  |

* This table is an abbreviated summary of major research findings; see Moore et al. (1995) for complete presentation. Plus sign means more likely, minus sign means less likely, blank means unknown or inconsistent results.

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# The Consequences of Nonmarital Childbearing for Women, Children, and Society

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## Introduction

This paper addresses the question, what are the consequences of nonmarital fertility for children, women, and society? Surprisingly, given the strong interest and concern over the increase in nonmarital births, this question has rarely been examined directly. However, there is a substantial amount of research on a closely related topic--single motherhood--which results from nonmarital childbearing as well as from divorce and separation. Some of this research distinguishes among different types of single motherhood. Thus, by examining this literature and by asking whether families headed by never-married mothers are different from families headed by other types of single mothers in terms of outcomes for women, children, and society, we can gain some idea of the potential consequences of nonmarital childbearing. To the extent information is available, the consequences of nonmarital childbearing for women of all ages will be examined.

Many people equate nonmarital childbearing with teenage childbearing. This characterization is misleading since less than a third of nonmarital births are to women under 20. Nevertheless, given the strong interest in early childbearing and the large amount of research on the topic, it is useful to examine the consequences of teenage motherhood and to ask whether married teen mothers do better or worse than unmarried teen mothers.

The paper is divided into three sections. The first section discusses some of the data and methodological limitations that stand in the way of answering the question posed above. The second section asks whether never-married mothers fare better or worse than other single mothers and examines the evidence regarding the consequences of single motherhood, and the third section examines the evidence on early childbearing.

## Data and Methodological Limitations

Many factors stand in the way of accurately assessing the economic and social consequences of nonmarital childbearing. First, the data requirements for such an analysis are substantial. In order to identify the population of women who have given birth outside marriage, we must have complete information on women's marital and fertility histories. Such information is missing from many large data sets, and, where it exists, information is often missing on women's income and participation in public assistance programs. Prior to 1992, the CPS bi-annual survey of child support income only identified nonmarital births for women who had never married, even though many women who had a nonmarital birth were married at some time. The problem is even more serious when it comes to identifying nonresident fathers. Few surveys collect information on men's fertility histories, and even when they do, many men fail to provide accurate information. The literature is vast, and nearly all of it focuses on single motherhood.

To assess the consequences of nonmarital childbearing for children, researchers either must have retrospective data on mother's marital status at birth or longitudinal data that follow children over time -- long enough to assess cognitive and emotional development in childhood and, ideally, long enough to assess socio-economic attainment in young adulthood. At present, there are only three, large, nationally representative data sets that meet all of these criteria: the Panel Study of Income Dynamics, the National Longitudinal Study of Youth-Child Supplement, and the National Survey of Families and Households. The new National Longitudinal Survey of Youth, which is scheduled to begin in 1996, and the new child panel in the Survey of Income and Program Participation also meet these criteria.

In addition to these data limitations, other obstacles stand in the way of accurately assessing the effects of nonmarital childbearing on mother and child well-being. Women who give birth outside of marriage are different in many ways from women who give birth within marriage. Some were poor or disadvantaged in other ways even prior to becoming pregnant. These women would have had substantial problems in their future even if they had not become pregnant. Therefore, one cannot directly compare an unmarried mother to a married mother and attribute the entire difference to consequences of nonmarital childbirth. Because these differences (e.g., in family income or school aptitude, may also affect the well-being of these mothers and their children), it is difficult to disentangle the effect of marital status and the effect of these other factors.

Researchers can adjust statistically for observed differences between women who have children within marriage and women who have children outside of marriage. They can use econometric techniques and more carefully designed comparison groups to try to adjust for differences that cannot be measured. Faced with this challenge, and recognizing the importance to policy makers of obtaining accurate estimates of the consequences of children's family experiences, researchers have become increasingly sophisticated in their approaches to measuring the consequences of parental behavior.

This is especially true of research on teen motherhood, where analysts have used more carefully defined comparison groups to minimize the amount of unmeasured differences between teens who did and did not have a birth. Some of these studies compare sisters or cousins who did and did not have teen births. Other studies compare pregnant teens who had a birth to pregnant teens who had an involuntary miscarriage. Because everyone in the latter study was pregnant, the study controls for sources of disadvantage that lead them to become pregnant, and provides a better estimate of the "true" consequences of actually raising a child as a teen parent.

Unlike studies on teen childbearing, research on the consequences of nonmarital childbearing among adult mothers has focused less attention on adjusting for unmeasured differences. Therefore, many of these results are not directly comparable to the results regarding teen motherhood. Further research is needed to assess whether adult women who have nonmarital births are different from married mothers in ways other than their marital and fertility behavior, and whether these differences have led to biased estimations of the consequences related to nonmarital births.[1]

Short of running an experiment in which women are randomly assigned to have marital and nonmarital births, it is impossible to say with certainty whether differences in child and maternal outcomes are due to differences in mother's marital status at birth or if something else distinguishes these two groups of mothers that was not taken into account by the researcher (Hoffman, Foster and Furstenberg Jr. 1993; Geronimus and Korenman 1993; Hotz, McElroy and Sanders 1995).

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[1] Unmeasured differences may be less important for the consequences of single motherhood, since that occurs among a much broader spectrum of society. However, nonmarital childbearing represents a narrower segment of the population.

## Single Mothers

Nearly all children born outside marriage spend some time in a single parent family (Bumpass and Sweet 1989). Thus, the research on the consequences of single parenthood is useful in helping us assess the consequences of nonmarital childbearing. At least two major monographs on the effects of family structure and resources on children were published in the past year (McLanahan and Sandefur 1994; Haveman and Wolfe 1994), and a conference hosted by the National Academy of Sciences featured twelve papers which included this topic (Brooks-Gunn and Duncan 1995). Before reviewing in detail the research on the consequences of single motherhood, it is useful to discuss whether never married mothers have similar outcomes to other single mothers.

### Are Never Married Mothers Different from other Single Mothers?

Only a few studies distinguish between divorced, separated, widowed and never married mothers. The findings from such studies, however, are quite consistent and indicate that children who grow up with never married mothers are no worse off (and no better off) than children who grow up with a divorced or remarried mother (McLanahan and Sandefur 1994; Smith et al. 1995; Korenman and Miller 1995; Hanson et al. 1995). Being born to married parents appears to carry no great advantage for children unless their parents remain together while the child is growing up.

With respect to economic costs, never married mothers and divorced/separated mothers are more similar than different. Never married mothers have higher poverty rates (and therefore higher rates of welfare receipt) than divorced and separated mothers. However, much of this difference is due to a difference in the ages of the mothers and children. Among families with young children (less than age 6), poverty rates are 74.1 for never married mothers and 58.1 for divorced and separated mothers, a difference of 16 percentage points (U.S. Bureau of the Census 1993, Table 13). If we compare young mothers (ages 16 to 24), the difference in poverty rates drops to 8 percentage points, 82.8 for never married mothers and 74.2 for divorced and separated mothers.

### Consequences for Children

The major findings of the research on the consequences of single motherhood for children may be summarized as follows:

- Single motherhood has small to moderate effects on child well-being. To get an idea of the magnitude of the effects of single motherhood, consider the following: During the 1980s, the high school dropout rate was approximately 18 percent for all children in the U.S., 13 percent for children in two-parent families, and 26 percent for children in single-mother families. The statistics show that living with a single parent increases the risk of dropping out of school by a factor of two, a nontrivial effect. However, they also show that dropping out of high school would still be a problem in the U.S. even if all children were living with both parents. At best, the dropout rate would go from 18 percent to 13 percent.

- The size of the effect depends on the particular outcome examined and the age of the child at the time of assessment. In general, the effects are larger (more negative) for behavior-related outcomes, such as "acting out," skipping school, or dropping out of high school, and smaller for cognitive outcomes, such as school grades or scores on standardized tests (verbal and mathematics). Similarly, the consequences are larger (more negative) when they are measured in adolescence and young adulthood rather than childhood. The age difference is probably due to the fact that behavioral problems have more serious consequences in young adulthood than in childhood (e.g., acting out in elementary school may lead to problems in the classroom whereas acting out in adolescence may result in dropping out of school or getting pregnant).

- The effects of single motherhood are consistent across different race and ethnic groups and across different social classes. They are similar for boys and girls and for children who live apart from a parent in early childhood as well as late childhood.

- In most instances, remarriage does not diminish the negative consequences associated with single parenthood, and in some cases it exacerbates problems. Children who live with a mother and stepfather or a mother and her partner do just as poorly in school and are just as likely to become teen mothers or spend time in jail as children who live with a single mother alone (McLanahan and Sandefur 1994; Cherlin and Furstenberg 1991). Researchers do not fully understand why living with a stepfather or (male partner) does not improve child outcomes, but the research is very consistent on this point with one exception. Among African Americans, remarriage has a positive effect on some indicators of child well-being (such as higher rates of high school graduation for boys and lower rates of early childbearing for girls). But remarriage is relatively uncommon among African Americans, and therefore the benefits associated with remarriage may be due to something about the mothers who remarry as opposed to remarriage itself.

  The fact that children in stepparent families do just as poorly as children in single mother families, even though their parents have much higher incomes is a puzzle for researchers. It could be that stepfathers are less willing than biological fathers to share their income with their new children, or it could be that remarriage introduces a new set of problems or uncertainties that lower child well-being. More research is needed on this topic.

- About half of the disadvantage on children's well-being associated with single motherhood is due to low income. Most of the rest is due to lower parental involvement and supervision and higher residential mobility (McLanahan and Sandefur 1994). Pre-divorce parental conflict accounts for no more than 15 percent of the lower achievement of children in single mother families (Hanson 1995).

- The evidence is mixed with respect to whether single mothers do better when a grandmother lives in the household. Some researchers report that the presence of a grandmother in the house has positive effects, especially for young mothers (Kellam et al. 1977; Burton, this volume). However, the benefits associated with living with a grandmother do not hold up across all studies (Chase-Landsdale et al. forthcoming). Some studies find no benefits or find that benefits do not exist for older mothers (McLanahan and Sandefur 1994).

All of the estimates described above are based on multivariate models that adjust for differences in family characteristics such as race, parents' education, place of residence, and number of children. However, these estimates may be capturing the effect of other factors that have not or cannot be adjusted for. If this is the case, the true effect of single parenthood lies somewhere below the estimated effect. Some researchers adjust for additional factors, such as family income or the quality of the home environment, which usually leads to smaller single-mother effects and sometimes to no effect. But low income and home environment, if they are measured following the birth, are likely to be consequences of family breakup, and therefore are best thought of as part of the consequences of single motherhood.

The findings summarized above are based on research including longitudinal studies that compare children before and after their parents' divorce, studies that compare children raised by widowed mothers with children raised in two-parent families, and studies that use econometric techniques to estimate the "true" single motherhood effect by adjusting for other differences between single and married mothers.

Evidence from the longitudinal research indicates that, on average, children of divorced parents do worse than children from intact families, even prior to their parents' divorce. For example, one widely cited study (Cherlin et al. 1991) found that half of the difference in achievement test scores between boys from intact and non-intact families was due to pre-divorce differences. However, follow-up studies of these same children have since shown that divorce had long term negative consequences, in addition to the effects of any pre-divorce differences in child well-being (Chase-Lansdale, Cherlin, and Kiernan 1995). This is consistent with other research, using longitudinal data, that shows marital disruption is associated with changes in parental resources and declines in child well-being (Morrison and Cherlin 1995; Baydar, and Brooks-Gunn 1994; Astone and McLanahan 1991; McLanahan and Sandefur 1994.)

Some studies on the consequences of singlehood compare widowed mothers with married mothers. Widows are used as a comparison group because, unlike divorce, widowhood is less related to pre-existing family problems that also affect future child well-being. The evidence from the research on widowhood is mixed. For some outcomes (high school graduation) and some subgroups (whites), children in widowed-mother families do just as well as children in original two-parent families, suggesting that father-absence has no negative consequences for children. For other outcomes (early childbearing) and other subgroups (African Americans), children in widowed-mother families do worse than children in two parent families (McLanahan and Sandefur 1994; McLanahan and Bumpass 1988). However, even if children in widowed-mother families were doing much better than children in other single-mother families, one might question whether widowhood was picking up the "true" effect of single motherhood. On the one hand, widowhood is a more random occurrence than divorce. On the other hand, widowed mothers are more likely to receive social security benefits and other kinds of support that presumably alter their experience of single motherhood. The question of why and when widowhood has a protective effect for children deserves further study.

A few researchers have attempted to adjust for "unobserved" differences between single-mother and original two-parent families. Where they have done so, the results are ambiguous (McLanahan and Sandefur 1994; Manski, Sandefur, McLanahan, and Powers 1992; Haveman and Wolfe 1994). On the one hand, there is evidence that unobserved factors are associated with both family disruption and poor outcomes in children. On the other hand, the disadvantages associated with single motherhood persist to some degree even after taking this correlation into account.

Taken together, the research on single motherhood suggests that father absence per se has negative consequences for children, but that the effects are moderate at best. Some of the negative consequences associated with single motherhood are likely to be due to unmeasured factors that lead parents to live apart in the first place, such as lack of commitment to family life, problems of alcohol and drug abuse, and inability to get along with each other. Children from such families would have had poorer outcomes, even if their parents were together. Failure to take these unmeasured factors into account may cause the consequences of single motherhood to be overestimated. These unmeasured differences may be relatively unimportant among all single mothers, because single mothers represent a broad spectrum of society.

## Consequences for Women and Society

Single motherhood is associated with higher poverty rates and higher rates of welfare receipt among women. It also is associated with higher rates of depression, unhappiness, low self-esteem and poor health (McLanahan and Booth 1989; Seltzer 1994; Brown and Eisenberg 1995). However, it is important to note that while the official poverty rate is 4 to 5 times as high in single mother families as in married-couple families, 45.7 versus 8.4 in 1992 (U.S. Census 1993), these differences greatly exaggerate the consequences of single motherhood per se. Women who become single mothers, either through divorce or a nonmarital birth, have less education and lower earnings capacity to begin with than women who marry and remain married. Their partners are also disadvantaged relative to other men. Mary Jo Bane found that about 25 percent of white women and about 75 percent of African American women were poor prior to becoming single mothers, suggesting that single motherhood accounts for no more than half of the higher poverty rates of single mothers as compared with married-couple families (Bane 1986).

Single motherhood also has costs for the rest of society. Approximately half of all single-mother families receive some type of cash assistance during the year, and a higher percentage receive noncash transfers such as food stamps and Medicaid (U.S. Bureau of the Census 1993, Table 7). If all single mothers were married, a substantial proportion of these women and their children would continue to be poor, although many would no longer qualify for AFDC. Thus welfare costs would go down, partly because of declines in poverty and partly because fewer mothers would qualify for the level of assistance they received before. Welfare costs would not disappear entirely, however. Some families would continue to qualify for AFDC through the AFDC Unemployed Parent (AFDC-UP) program which provides AFDC benefits to poor, eligible two parent families, while others would continue to receive food stamps and Medicaid.

One reason why single mothers are poor is that nonresident fathers often fail to pay child support (Garfinkel 1993), or do not pay the full amount of child support ordered. In 1991, less than 60 percent of all children eligible for child support actually had a legal child support order, and one quarter of those with an order received nothing. Only of quarter received the full amount they were due. Despite the passage of several major pieces of legislation during the 1980s, including the Family Support Act of 1988, the percentage of eligible children with a child support award has remained flat during the past decade (Hanson, Garfinkel, McLanahan, and Miller 1995). In part, this is due to the fact that more children are being born outside marriage, and it is more difficult to collect child support for these children. In effect, the system has had to work harder just to stay in place. Some people argue that the fathers of children born outside marriage are too poor, or too psychologically damaged, to pay child support. While indirect estimates of fathers' ability to pay suggest many fathers could pay much more than they do (Garfinkel, McLanahan and Robins 1994), many of these fathers have very low incomes, particularly those who father children outside of marriage. (As noted above, even if these women married the fathers, a substantial portion of them would still be in poverty.) The empirical research on nonresident fathers is relatively sparse, in part because of data limitations--most surveys do not identify the population of nonresident fathers--and in part because analysts have deliberately focused on single mothers and children. Nonresident fathers is an area of research that merits much more attention, both in terms of making sure that survey questionnaires ask men about children who are living in other households and in terms of conducting empirical analyses.

For children born outside marriage, paternity establishment is a necessary but insufficient step to obtaining child support. The country has made substantial progress in this area, with paternity establishment rates doubling since the early 1980s. Some states, such as Wisconsin, establish paternity in over 70 percent of nonmarital births, but this is the exception, not the rule. Paternity establishment not only has the potential to reduce welfare costs, it also may reduce the rate of nonmarital childbearing. Recent research indicates that nonmarital birth rates are lower in states with stronger paternity establishment and child support enforcement systems (Gaylin and McLanahan 1995).[2]

Finally, single motherhood affects the family formation behavior of future generations. Children who grow up in communities with a high prevalence of single mother families find single motherhood more acceptable and are somewhat more likely to become single parents themselves than children who grow up in communities where single parenthood is less common (Abrahamse, Morrison, and Waite 1988; McLanahan 1988; Thornton 1991). The intergenerational effect persists even after adjusting for other community variables such as dropout rates, unemployment rates, and crime (Case and Katz 1991).

## Teen Motherhood

About a third of all nonmarital births are to women under age 20. Thus the research on the consequences of teen motherhood for women, children, and society is relevant to our assessment of the consequences of nonmarital childbearing. The topic of teenage motherhood has received as much or more attention than the topic of single motherhood. In 1987, a report dealing with the subject, *Risking the Future*, was published by the National Research Council. In 1992, the National Institute of Child Health and Human Development held a conference on the topic (Bachrach and Carver 1992), and a new report, *Kids Having Kids: The Consequences and Costs of Teenage Childbearing the United States*, which uses state-of-the-art methods to address the issue, is forthcoming in 1995.

### Are Never-Married Teen Mothers Different?

The vast majority (over two thirds) of teen mothers are unmarried at the time of birth. The younger the mother, the less likely she is to be married. Because of the strong association between early childbearing and nonmarital childbearing, the effects of teen motherhood are often interpreted as the effects of unmarried motherhood. The evidence shows that this interpretation is incorrect. In most instances, early childbearing has similar consequences for married and unmarried mothers (Moore, Morrison, and Greene 1995; Child Trends 1992). One reason why marital status at birth does not have a more positive effect on outcomes for women and children is that divorce rates are very high among young married mothers and the vast majority of married teen mothers become single mothers before their children are 18.

### Consequences of Teen Motherhood for Children, Women, and Society

The effects of teenage childbearing can be summarized as follows:

- The consequence of teen motherhood for children depends on the ages of the mothers being compared and the measure of child well-being examined. If the comparison is between young teen mothers (less than 18) and mothers in their mid-twenties, the effects are substantial. Children of young teen mothers score lower on a variety of standardized tests and measures of home environment quality than children born to older mothers (Moore, Morrison, and Greene 1995). If the comparison is between older teen mother (18 or 19) and mothers in their early twenties (20 or 21), the differences between the two are small or nonexistent (Moore, Morrison, and Greene 1995; Geronimous, Korenman, and Hillemeier 1991*). If the measure of child well-being is health status, such as low birth weight or well-baby care, the children of teen mothers appear to do the same or even better than adult mothers (Rosenzweig and Wolpin 1992). If the measure is cognitive test scores or quality of home environment, children of teen mothers are worse off than children of adult mothers.[3]

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[2] There are no national statistics collected on paternity establishments. It has become common practice to use as a proxy for the rate of paternity establishment (CSE), the annual number of paternities established by state child support enforcement programs divided by the number of children born outside of marriage in that year. This is not an actual measure of the rate of paternity establishment for several reasons. First, the numerator includes paternities established by the CSE program for children ages 0 to 18 while the denominator only includes children from age 0 to 1 year. Second, CSE data does not include paternities established outside of the CSE system, either privately, through the courts or voluntary acknowledgments or through the marriage of the parents.

- Teen motherhood has negative consequences for women's educational attainment, including high school graduation and college. According to one set of estimates, if all children were born to women over 20, high school graduation rates would be about 20 percentage points higher (71 percent versus 54 percent) and college attendance rates would be nearly twice as high (26 percent versus 14 percent). Teenage childbearing also reduces the income a mother will have relative to the basic needs of her family (as measured by the income to needs ratio) and increases poverty. It increases the number of children a women bears (by about .5) and the number of years she spends in a single mother family (Hoffman, Foster, and Furstenberg 1993).[4]

- The effect of teen motherhood on women's earnings and labor force participation is uncertain. While lower education and higher fertility suggest that early childbearing reduces women's earnings capacity, a recent report shows that minor teen mothers have higher labor force participation and earnings in their late twenties and early thirties than women who delay childbearing (Hotz, McElroy, and Sanders 1995). These researchers compare pregnant teens who gave birth to pregnant teens who had an involuntary miscarriage, to control for disadvantages that may lead teens to become pregnant, and better identify the "true" effect of teen motherhood. However, in doing so, they assume that teens who miscarry are just as healthy as teens who carry their pregnancy to term. If this assumption is incorrect and if miscarriages are an indicator of poor health, this might account for the lower labor force participation rates of the older mothers. More research is needed before this issue can be satisfactorily resolved.

- The effect of early childbearing on welfare participation and costs is also uncertain. As noted above, the fact that early childbearing leads to higher fertility and lower marriage suggests that teen mothers have higher rates of welfare participation. On the other hand, the fact that young teen mothers may have higher earnings (and pay more taxes) once they finish their childbearing years suggests that the difference in welfare costs are minimal. Hotz and his colleagues note, "While we find that government incurs substantial costs in the provision of various forms of public assistance to teen mothers, little of this cost can be attributed to the failure of teen mothers to postpone their childbearing" (forthcoming) Again, these estimates are based on the assumption that a birth will be postponed only two years and that young women who miscarry are just as healthy as young women who carry their babies to term.

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[3] These results are consistent across both standard multivariate models and models based on cousin comparisons.

[4] The research cited above is based on comparisons of sisters.

## Policy Implications

The research on single motherhood and teen motherhood has at least three major policy implications. First, there is nothing in the literature to suggest that nonmarital childbearing has more negative consequences for children than divorce or separation. Thus, the research provides no justification for policies that treat unmarried mothers differently from other single mothers.

Second, the evidence indicates that low income is the single most important factor in accounting for the negative outcomes associated single motherhood. Hence, if the goal of public policy is to improve child well-being, the most important step the first goal of public policy should be to insure that children raised in single-mother families have adequate incomes. Furthermore, whatever steps are taken to reduce the prevalence of nonmarital childbearing and divorce would need to be done in a way that does not impoverish children. Otherwise, the negative consequences associated with the latter are likely to outweigh whatever benefits accrue from the former.

Universal paternity establishment and child support enforcement are two ways to reduce the economic insecurity of single mothers and children. The policies are relatively inexpensive and they shift some of the costs of single motherhood from mothers and taxpayers to fathers. Moreover, there is some evidence that child support enforcement discourages nonmarital childbearing.

Finally, policy makers should be cautious about passing legislation that focuses entirely on strongly encouraging single mothers to remarry or live with their own parents. The research indicates that remarriage is no panacea and the findings on the benefits of living with a grandmother are mixed. In the case of some teen mothers, particularly minors, living in the home of their parents may be beneficial because it would provide support and help insure that the teen finishes school. In the case of other teens, living in the home of their parents may be unhealthy. In such cases, an alternative living arrangement that still provides adult supervision and support might be more beneficial. Nonetheless, as research in this report indicates, the resources of many family networks are very limited, and such policies are not, by themselves, a solution.

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# Strategies to Reduce Nonmarital Childbearing

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## Introduction

Over the past five decades, the traditional link between marriage and childbearing has substantially weakened. The five-fold increase in the rate of nonmarital childbearing since the 1940's is the result of changes in the sexual and marital behavior of single men and women of childbearing age. Public concern about the economic and social costs of this behavior -- especially the prolonged public dependency of those who first give birth as teenagers -- has fueled many prevention initiatives designed to reduce teenage pregnancy and childbearing and, to a lesser extent, nonmarital childbearing generally. These prevention efforts have focused almost exclusively on changing sexual and pregnancy-related behavior of women. Little attention has been paid to affecting the sexual behavior of men, nor have initiatives attempted to encourage marriage.

There is a growing consensus across the political spectrum that a major goal of public policy should be to reduce the rates of nonmarital childbearing. The studies reviewed in this report have identified a wide array of factors that influence the behavior which leads to nonmarital pregnancies and births. Five major lessons for guiding the development of effective public policy emerge from these reviews.

1. No single strategy can significantly reduce the current high rates of nonmarital childbearing. The population of women and men at risk is too diverse in age and circumstance, and the causes are too complex for any single policy or program strategy to have an impact.

2. Nonmarital childbearing is occurring at unprecedented high levels in most industrialized nations, independent of income, geography, and ethnic/racial background. The universality of this trend indicates that it arises from deep-rooted and broad social, technological, and cultural trends. Thus, while the U.S. trends in fertility and marital behavior may be able to be slowed or reversed to some degree by policy interventions, they will clearly be extremely difficult to counteract

3. Different strategies are needed for populations at greatest risk. Low-income, minority teenagers are at highest risk and cause policymakers the greatest concern as they are the most likely to need prolonged public support. Within this group, the sub-group who have very unstable housing arrangements and few family supports are the group at risk of the most negative outcomes -- but are also the group whose behavior is the most difficult to change. The combination of factors affecting this group -- poverty, inequality of opportunity and cultural differences -- require the most complex, multi-faceted and, hence, expensive interventions.

4. Some prevention strategies are based on the assumption that sexual, fertility, and marital behavior is a consequence of so-called "rational" decision-making--- meaning that unmarried individuals weigh the risks, costs and benefits of their actions and decisions that may lead to nonmarital childbearing. While these strategies may be effective with some older women of childbearing age, they are unlikely to be

effective with many low-income teenagers who are chronic risk takers, live only for the present, and have little or no sense of a future for themselves.

5. There are major gaps in the research. Most of the studies and policy concern has focused on adolescent childbearing. However women age twenty and over account for 70 percent of all nonmarital births and thus also require attention. Similarly, until recently little attention has been paid to males. And there has been virtually no focus on marital behavior.

This paper draws upon the lessons of research, as presented in earlier papers of this volume and other documents, to review and assess current intervention strategies. It discusses the decision-making process once a nonmarital pregnancy occurs and the three alternatives to bearing a child-out-of wedlock --marriage, adoption and abortion. It then reviews a wide range of policy and program strategies employed by the public and private sector and suggests some expansions, modifications, and new policy directions (see Table I.).

The findings that emerge from the multi-disciplinary body of studies reviewed for this report suggest that while the majority of studies and interventions focus on the behavior of women, the framework for assessing the decisions leading to nonmarital births is more complex. Nonmarital births must be understood as the product of the interaction of men and women with each other and with a complex array of individual and social and political environmental factors [See Appendix I for a diagram and more extensive explanation of this ecological framework.) Included within this framework are all the factors that the research have found to play some role: the acquired knowledge, attitudes, values, personal skills, and competencies of the individual men and women; the attitudes, values and behavior of those in their families, peer groups and neighborhoods, and as presented in the media; the institutions, programs, and services in their neighborhood and work environments; and larger, more distant and formal private and public sector institutions that provide a range of services each of which may offer various behavior incentives and penalties. Finally, there are public programs and policies, such as broad economic and labor market conditions, that indirectly affect marital and fertility behavior.

As will be noted later in this paper, intervention strategies may target different actors and agents at different levels. For example, sex and family life education strategies may aim to directly affect the knowledge and values of young men and women at risk, or indirectly through affecting their parents and neighbors, the media and other institutions in the broader culture. When assessing current or proposed strategies, policymakers should:

(1) clarify the target and level of intervention

(2) define the specific behavioral objectives

(3) delineate the theoretical rationale underlying the strategy, that is the causal pathways through which research suggests the changes can be expected to occur

(4) clarify whether the strategies are expected to have effects in the short-term or longer term. [Appendix II offers suggestions for how to ask the right questions when assessing current or proposed strategies.]

## Policy and Program Strategies: Background and Overview

Policy and program prevention strategies have evolved over the past three decades partly in response to the growing body of studies that have enriched and deepened the understanding of the causes and consequences of nonmarital childbearing. In the 1970's, teenage and nonmarital pregnancy prevention strategies were confined to striving to provide all youth with sex education, and teenage girls and adult women with access to contraceptive services and abortion. Subsequent research emphasized that reproductive information and access to contraceptive services were necessary but not sufficient to combat unwed pregnancy; many women were just not motivated to abstain from sex and/or practice birth control.

The scope of sex and family life education programs has since expanded to incorporate a wider range of strategies -- including promoting abstinence -- that target men, women, and other stakeholders, such as parents and community and religious leaders. In addition, some initiatives designed for youth focus on trying to broaden their life options, helping teens develop a sense of hope and control over their futures. In the last few years, policymakers have also focused on ways to re-design a variety of welfare programs which some believe may encourage (or at least do not discourage) nonmarital childbearing. Finally, there is an emerging recognition that male behavior also needs to be more directly addressed and men need to be held more accountable for their role in nonmarital childbearing. Strategies for encouraging more responsible male behavior have included national efforts to establish legal paternity and stronger enforcement of child support obligations. As studies began to emphasize the connections between unemployment and low job skills and out of-wedlock childbearing, some initiatives have focused on providing job training and employment for high-risk males.

As policy has evolved, the overall goal of reducing teenage pregnancy and childbearing, and to a lesser extent nonmarital childbearing generally is currently being pursued through many different strategies simultaneously, each focused on different specific objectives. Table I presents seven of these objectives, and delineates the related current and proposed interventions. Currently, numerous programs have been guided by the following objectives:

1. Delaying young people's initiation of sexual activity.

2. Ensuring that unmarried, sexually active women and men practice regular and consistent contraception.

3. Encouraging unwed parents-to-be, once a pregnancy has occurred, to choose alternatives to unwed parenthood.

4. Coordinating or consolidating preventive efforts and services for youth at high risk of unwed childbearing and related self-destructive behaviors.

5. Improving education and economic opportunities for young men and women at risk to provide them with incentives,to avoid premature, single parenthood.

6. Establishing clear consequences for nonmarital childbearing within public programs -- without harming children.

7. Removing apparent program and policy disincentives that may encourage nonmarital childbearing (and discourage marriage).

## TABLE I. GOALS, OBJECTIVES AND STRATEGIES

<table>
<tr><td colspan="3"><b>MAJOR GOAL</b>: To reduce rates of non-marital childbearing</td></tr>
<tr><td colspan="3"><b>OBJECTIVES</b></td></tr>
<tr><td>1. To delay sexual activity:<br>until school graduation<br>until marriage</td><td>2. To practice regular and consistent use of contraceptives once sexually active.</td><td>3. To choose alternatives to unwed motherhood when becoming pregnant:<br>marriage<br>adoption<br>abortion</td></tr>
<tr><td colspan="3"><b>STRATEGIES</b><br><b>(Designed to address all three objectives)</b></td></tr>
<tr><td colspan="3"><i>Community-wide education and awareness campaigns</i>--including use of media. To increase community support for responsible sexual behavior.<br><i>Sex and family life education programs</i>. (<i>School, community, work place, and church-based</i>). To improve knowledge, values, and decision-making skills.<br><i>Family planning services</i>. To provide information, counseling and subsidized access to contraceptives.<br><i>Education, jobs and youth recreation programs</i>. (<i>Life options</i>.) To increase motivation to avoid non-marital childbearing.<br><i>Pregnancy, adoption and abortion counseling</i>. To provide information about alternatives to unwed parenthood.</td></tr>
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## TABLE I. GOALS, OBJECTIVES AND STRATEGIES (continued)

**MAJOR GOAL**: To reduce the rates of non-marital childbearing

| | | | |
|---|---|---|---|
| **OBJECTIVES** | | | |
| 4. To coordinate preventive efforts for at-risk youth. | 5. To improve education and economic opportunities for low-income young women and men. | 6. To establish clear penalties and consequences for non-marital child bearing (without harming children). | 7. To remove policy and program incentives and disincentives that may encourage non-marital childbearing |
| **STRATEGIES** | | | |
| Consolidate school-based, risk-behavior prevention programs.<br>Comprehensive, multi-service centers for youth. | Life-options for youth programs.<br>Employment/training demonstrations for welfare recipients (to prevent subsequent births).<br>School reforms.<br>Macroeconomic and labor market policies. | Strengthen universal paternity establishment and child support enforcement.<br>Require AFDC mothers to attend school/JOBS (and provide child care).<br>Require non-paying, non-custodial parents to participate in JOBS-type programs. | ●Impose *family caps* on births while on welfare.<br>●Liberalize eligibility for AFDC-UP and inform public.<br>●Revise EITC tax marriage penalty.<br>●Assess housing policies. |

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These different objectives reflect the fact that the birth of a child outside of marriage is the end result of a series of behaviors -- individuals' and couples' actions, decisions, and inactions -- taken at different stages by unmarried men and women. Some strategies are designed primarily to help them avoid nonmarital pregnancy -- such as providing sex and family life education, and access to contraceptives. Others are designed to help women (or couples) resolve pregnancy once it occurs in a manner which will not result in nonmarital parenthood. Before reviewing the particular strategic interventions, a discussion about how a pregnant unmarried woman (and her male partner) consider alternative options is warranted, since this has not been much discussed elsewhere in this volume.

## Pregnancy Decision-making

When an unmarried woman, whether teen or adult, first becomes aware that she is unintentionally pregnant, she faces some difficult decisions: whether to carry to term or abort, whether to place her baby for adoption or raise it herself, or whether to marry the baby's father. Depending on what choice she makes, she will usually need to locate additional health care and social services. If she chooses to tell her parents, sexual partner, or friends, as the majority of women do, she will have to deal with their values and attitudes.

Their reactions and the advice they give will have a strong influence on the decision she eventually makes. Typically, at some point, she will encounter professionals who will also offer information and counsel -- usually after she has more or less made her decision. However, some women are reluctant to turn to their partner or family for help and rely more heavily on professionals for advice.

***Who Provides the Information, Advice and Counseling?*** Very little is known about who provides pregnancy counseling, where they provide it, how they are trained, what their values are, what kind of advice and help they give to pregnant women, and what the effects are of the counseling (Moore et al. 1995 (b).) The auspices under which counseling is provided -- a family planning clinic, an abortion clinic, or a pro-choice or pro-life crisis counseling center -- clearly shapes the kind of advice given. Some clinics hire highly skilled social workers to talk at length with pregnant women, especially with young teenagers. In some centers, the counseling is *pro forma*, brief, and provided by individuals with little or no professional training. Some counselors encourage the involvement of the partner or parent in their session; others seldom do so (Smollar, Youniss and Ooms 1986).

***The Adoption Resolution.*** Very few unmarried pregnant women choose to place their babies for adoption, and the percentage who do has dropped sharply in recent years. In 1982-1988 only 2% of all nonmarital births were officially placed for adoption (3.2% white, 1.1% black) By contrast in the period 1952-1972 8.7% of all nonmarital births were placed for adoption (nearly 20% white, but only 1.5% black) (Bachrach et al. 1992). Although the black community seldom uses formal adoption, informal adoptions are described as being widespread but data are not available to document their numbers of characteristics.

Because adoption data are scarce and unreliable, it is not possible to confirm the prevalent impression that the demand for healthy, usually white babies to adopt has grown, as the supply has shrunk. Faced with long waiting lists, adoptive parents are increasingly resorting to international and transracial adoptions (National Committee for Adoption 1989; Stolley 1993). The perceived increase in demand may partly be in response to increased infertility experienced by women who are trying to get pregnant at older ages, but also in part due to the increased numbers of women of childbearing age. Unmarried mothers are now less likely to choose adoption for a number of reasons. Twenty years ago, great stigma and shame was attached to unwed motherhood, and the social pressures from family, friends, and professionals were usually strongly in favor of adoption. These pressures tended to override any personal feelings of reluctance the young mother might have. Testimony from birth mothers pregnant during this period makes it clear that their decision to place their babies for adoption was often made under considerable duress, and they also knew they would get little support or help if they kept their baby.

Attitudes toward nonmarital childbearing have changed dramatically. Pregnant teenagers report that their peers express dismay that they might even consider "giving away their babies" to strangers. Male partners often urge their girlfriends to keep and raise their babies, promising assistance (which typically fails to materialize). Parents, who may initially respond to a teen daughter's pregnancy with anger and disappointment, often rally and provide a great deal of practical and emotional support upon the birth of their grandchild (Furstenberg, et al. 1987; Worthington, et. al. 1991).

Studies have found that health care professionals and social workers providing counseling and other services to pregnant women seldom present adoption as a real option (Mech 1986; Resnick 1992; Smollar Youniss and Ooms 1986). The counselors' attitude mirrors the public acceptance of unwed motherhood, the secrecy and shame often surrounding adoption, and the belief that the teenager would never consider adoption anyway.

In addition, in the 1970's the Supreme Court affirmed the right of unwed fathers to be consulted before their children are placed for adoption (Howe 1993). This new obligation on the social worker to identify and track down the father adds an additional practical barrier to the psychological barriers unwed pregnant women experience when deciding to place their baby for adoption.

Some people in the adoption field believe that if adoption were presented to pregnant unmarried women in a more favorable light, more unmarried women would choose adoption. New counseling strategies include providing the pregnant woman with the opportunity to meet with families who have adopted children, with adult adoptees, and with older birth mothers. These encounters can help to shift the pregnant woman's thinking from adoption as a rejection of her baby to adoption as the best way to promote her baby's future well being.

One study of over 600 pregnant teenagers receiving services from federally funded Adolescent Family Life Care Demonstration Projects found that the more education the young woman had the more likely she was to choose adoption. In addition the program practices most closely associated with higher rates of placement for adoption were: (i) providing adoption counseling for all the clients; (ii) involving the client's family in the pregnancy resolution counseling; and (iii) the client meeting with young women who had previously chosen to place their babies for adoption (McLaughlin and Johnson 1992).

Some adoption professionals believe that the practice of "open adoption," while controversial, may help some pregnant mothers place their babies. Open adoption practices vary -- from having the birth mother select, meet with and have continued, though limited contact with the adoptive parents -- to semi- open adoption when the birth mother helps to choose her baby's adoptive parents from the file, and may be able to exchange some written information with them but their identity remains confidential. Open adoption appears to incur both benefits and costs to the parties involved and clearly needs to be individualized to meet the needs, wishes, and emotional maturity of the parties involved (Baran and Pannor 1993; Berry 1993).

Even if these new adoption practices were found to result in more unwed parents placing their babies for adoption, training the highly unorganized profession of pregnancy counselors in the new approaches would present a tremendous challenge.

Some argue that if public welfare benefits were not made available at all to unmarried mothers, more of them would choose to place their babies for adoption. However, the availability of public support does not appear to be the critical factor in the decline in adoption placements since public welfare was also available in the 1950's and early 1960's when adoption rates were much higher.

***The Marriage Resolution.*** The decision to marry following a nonmarital pregnancy has been discussed very little in recent years at either the program or policy level. This neglect, which almost amounts to a marriage taboo is perhaps surprising given that the current high rates of nonmarital childbearing are more directly the result of changes in marital behavior than fertility behavior. For example, teen birth rates were higher in the 1950's and 1960's than in the 1980's, but in the earlier decades teen mothers were married.

Marriage is much less often considered by women and men to be an appropriate response to an unwed pregnancy than in earlier decades. The reasons for this change are fairly clear with respect to pregnant teenagers. Society does not offer teenagers much encouragement to marry. Unmarried motherhood is no longer stigmatized; in some communities, it has become almost the norm. Nowadays when a teenager becomes pregnant, the young couple are seldom under pressure from parents, family or friends to get married as they would have been 50 years ago. Furthermore, programs providing services to pregnant teenagers rarely propose marriage as the solution --in fact may actively discourage it -- perhaps because teenage marriages today are viewed as inherently unstable and economically inviable. In general the young mother is thought to be more likely to complete her education, and her baby better cared for, if she remains living in her parental home.

Nearly a decade ago two scholars called for a reexamination of these assumptions. They suggested that more research was needed on the subject of teen marriages and pointed out that studies have shown that some teen marriages are more resilient than previously believed (Vinovskis and Chase-Landsdale 1987).

It is much less clear why pregnant adult women, say in their mid-twenties, do not marry -- especially the increasing numbers who are living with the father of their child. Thornton (this volume) points out that the desire to marry, as measured in public opinion surveys, remains as strong as ever. However, the "normative imperative" (i.e., strong social pressures to marry and remain married) have weakened substantially. It remains puzzling that the high rates of non-marriage and cohabitation among men and women in their 20's have received so little attention.

While Lichter (this volume) suggests there no single explanation for this change, he presents four plausible explanations for the cause of declining marriage: (i) increased labor force participation of women and their improved economic status; (ii) single mothers' access to welfare and other public benefits; (iii) the decline in the employment, earnings, and economic status of men; (iv) cultural trends towards individualism and personal fulfillment. Also clearly the advent of the sexual revolution has played an important role: men and women no longer need to marry to be able to fulfill their sexual appetites.

The decline in marriage has been much more dramatic among African-Americans than whites. In the 1940's, black women ages 20 to 24 were considerably more likely to be married than white women (60 percent as compared to 50 percent). By the 1990's the situations had reversed. Only 22 percent of black women ages 20 to 24 were married compared to 40 percent of white women.

A number of scholars, most prominently William Julius Wilson of the University of Chicago, have recently studied explanations for the current low rates of marriage among all African- Americans, especially among the inner city poor. While there is some disagreement about the relative weight of different factors, it seems clear that among low-income African- Americans the scarcity of black males and their poor economic status play an important role. A recent review of the studies emphasizes the causal influence of the serious imbalance in the sex ratio due to the high rates of black male mortality and incarceration (due primarily to violence and drugs) (see Tucker and Mitchell-Kernan 1995).

On the other hand Duncan (this volume), finds that the inability of males to earn enough to support a family is the more important cause of non-marriage in the low-income population in general. De-industrialization and the restructuring of the global economy have led to the decline in the availability of jobs in the inner cities and decrease in hourly wage rates for unskilled labor. Thus, black men, who disproportionately live in these poverty stricken communities, increasingly have little to contribute economically to a family. Unfortunately few studies exist that examine marital decision-making among these populations in any depth, although they are very much needed.

Some of the causal factors contributing to the decline in marriage are not readily amenable to public policy intervention. However, others may be. Policy strategies being suggested include improving the economic situation of low income, low skilled workers -- both males and females-- through interventions in the labor market and the economy and addressing the marriage incentives or penalties embedded in the welfare and tax systems.

***The Abortion Resolution.*** No topic on the policy agenda arouses more bitter and divisive debate than the topic of abortion. For some the very inclusion of abortion on a list of prevention strategies is morally abhorrent. For others, abortion is a necessary and effective last-resort strategy, and its absence from the discussion would be unrealistic.

Earlier papers in this report which review the available data on abortion suggest that the increasing legal restrictions on abortion, reductions in public funding, and lack of access to abortion services have undoubtedly played some part in the recent increase in nonmarital birth rates in some communities. By contrast, however, some point out that the easy availability of abortion may have contributed to the increasing levels of sexual activity, to the failure to use contraceptives consistently, to men abdicating responsibility for contraception and marriage, and to women finding it harder to refuse men's sexual demands -- although these effects would be difficult to prove.

A similar controversy rages over the merits and effects of state laws establishing parent notification or consent for minors' abortions. These laws have broad support in public opinion polls, even among those who identify themselves as pro-choice. However, many health care professionals and advocates fear that such laws have made teens wary of any contact with health care professionals and may prevent some from getting needed prenatal care and also lead to more unwanted births. The evidence about the effects of notification laws on the rates of out-of wedlock births is unclear, in part perhaps due to the use of existing legal loopholes which permit teens to bypass notifying their parents in many circumstances. One study, comparing Minnesota with Wisconsin, found that the existence of a parental notification requirement had no significant effect on whether or not the parents were notified (Blum, Resnick and Stark 1987).

Proposals for partner or spouse notification for abortion are beginning to surface in policy discussions in reaction to the increasing national emphasis on enforcing male responsibility to provide financial support for a child they have fathered. Men, perhaps in response to becoming more aware of their legal financial responsibilities, are increasingly insisting that they have rights to be informed and consulted about pregnancy. Some men also express the wish to be more involved themselves in the pregnancy decision-making and abortion counseling process and procedures (Shostak 1993).

## Strategies Designed to Reduce Nonmarital Childbearing

This section will briefly review current prevention strategies and summarize major findings about effectiveness. In addition, a number of additional strategies or modifications are suggested that research and practice experience indicate may have promise. The strategies discussed below are those noted on Table 1. Some are initiated primarily at the program or community level while others are initiated and funded by policy officials at county, state and federal level but implemented at the community level.

### Sex and Family Life Education

Perhaps the most widespread prevention strategies being used today are programs designed to provide information and education to teenagers that will help them avoid nonmarital childbearing. To date, there has been very little concerted effort to provide sexuality education designed to promote responsible childbearing behavior for adults.

Formal sex education programs designed for young teenagers are provided by schools, churches, community-based organizations, and residential programs (i.e., programs for incarcerated youth). In addition to these formal avenues, some young people obtain their sex education from parents , from friends, and from the media (films, television, music, and magazines). Adult women obtain their information and education about sex primarily from friends and the media, and from visits to family planning clinics.

Sex and family life education provided under state or local public sponsorship continues to evoke considerable controversy. (The federal government has not played a significant role in funding sex education, except for a few demonstration programs to test the effectiveness of new curricula.) Although the debates are often focused on the content of sex education, the central disagreement concerns whose responsibility it should be to teach sex education to children and adolescents.

Most schools across the country now offer their students some formal sex education, typically in the ninth grade -- which may often be too late since by this time many young teens, especially disadvantaged males, are already sexually active. The courses generally require parent consent and/or offer parents the opportunity review or help design the curricula. But typically this education consists of only a few hours of instruction as part of basic health education. Sometimes the programs are specifically designed and funded as a teen pregnancy prevention initiative. A few school systems offer comprehensive sex education throughout the school years, tailored to the developmental needs of different age groups.

Sex education curricula typically provide factual information about sexuality, reproduction, and sexually transmitted infections. Many provide some limited information about contraception. In recent years, the curricula have also included segments on decision-making and clarification of values, and they increasingly promote abstinence especially for younger teenagers. Some programs also focus on improving communication between students and their parents about sexual behavior and values.

Public ambivalence about the acceptability of teenage sexual activity is reflected in the continued controversy about whether sex education curricula should include information about contraception. Yet the combined message of don't have sex but, if you do, use contraception has been found to be more effective than either programs that solely focus on abstinence or contraceptive use.

Reviews of the effectiveness of sex education agree that while traditional sex education does increase sexual knowledge, such knowledge is not sufficient to reduce adolescent pregnancy or births (see especially Moore et al. 1995 (b). Chapter II). The most consistent and clear finding is that sex education does not cause adolescents to initiate sex when they would not otherwise have done so. Some promising results have been reported from a few carefully designed and evaluated demonstration curricula that emphasize the development of behavioral skills -- practicing communication and decision-making -- in addition to knowledge, values clarification and abstinence. These comprehensive programs have resulted in lower pregnancy rates and delays in the initiation of sexual activity. However, these model programs have not been institutionalized on a large scale.

Information is not available about whether any of these curricula focus specifically on male responsibility for prevention of pregnancy or on the consequences to males of unwed childbearing. This would appear to be an important focus, especially given the new federal requirements that states must strive for universal establishment of paternity (through voluntary hospital-based programs) and in the light of the continued bipartisan support for more vigorous child support enforcement.

Nor is information readily available to the policy community about what information these curricula include about the responsibilities and benefits of marriage, the consequences of single parenthood for children and adults, or about marital decision-making.

Another limitation of existing school-based approaches is that since these programs target school-age students, they do not reach most of the young men who are the fathers of babies born to teenage mothers. These men are on average three to four years older than the mothers, and some are much older. Nor do they reach the population of at-risk teenagers who have dropped out of school.

### Community Awareness Pregnancy Prevention Campaigns

In the past decade, several states and communities have launched broad public education and awareness campaigns designed to prevent teenage pregnancy and childbearing. (Again these campaigns have not focused on changing the behavior of those age 20 and over.) These campaigns are typically partnerships between public and private sector organizations, including religious organizations, which use a variety of methods to reach youth, their parents, teachers, and youth leaders in the community, including posters, media spots, booklets, educational meetings, and so forth. Scientifically designed evaluations of these campaigns have not been conducted for the most part (Ooms and Golonka 1990).

In the early 1980s, there also were several national public awareness campaigns conducted that were specifically designed to encourage male sexual responsibility and make young men more aware of the consequences of teen childbearing for both partners. Again, the impact of these male responsibility campaigns was not formally evaluated. Focusing on young males continues to be a component of a few current public awareness campaigns.

## Multi-pronged, Coordinated Prevention Strategies

There is a growing awareness that teenage nonmarital childbearing is linked to other related behaviors, dubbed by health professionals as the "new morbidities." The dramatic rise in the rates of accidental and violent deaths, injuries, substance abuse, sexually transmitted disease, and pregnancy among teenagers is causing national alarm and was addressed in depth in a major national study of adolescent health (U.S. Congress, Office of Technology Assessment 1991). For a long time, service providers had realized that teenagers typically engaged in more than one of these high-risk behaviors simultaneously (See Dryfoos 1990). Indeed, one behavior often led to the other (for example, drinking and drugs are often responsible for auto-related deaths and injuries and connected to teen pregnancies, and teenagers who drop out of school are at much higher risk of abusing drugs and becoming unwed parents.) It is only in the last few years that the linkages between these behaviors are beginning to be numerically demonstrated in the Youth Risk Behavioral Surveys conducted by the Center for Disease Control and Prevention. The implications of this research are clear: efforts to prevent one category of adolescent high-risk behavior is unlikely to be successful unless other behaviors are also addressed simultaneously.

In response to the realization of these linked behaviors, two broad types of strategies for a multi-pronged, coordinated and more holistic approach to the prevention of teenage pregnancy and childbearing have begun to appear in many areas across the country.

1. **Consolidation of school-based prevention efforts.** In many school districts around the country, schools implement several different education-based prevention initiatives simultaneously, each with separate sources of federal and state funding and separate administration and staff. These programs include pregnancy prevention, substance abuse prevention, AIDS/HIV prevention, suicide prevention, and so forth. Evaluation of these efforts have found, as with pregnancy prevention, that increasing students' knowledge is not sufficient to change behavior. Therefore, they have had little preventive effect, except for those curricula that teach decision-making skills.

   Many believe that if these efforts were combined their chances of success would be much improved. Some attempts to consolidate these programs at state or county levels into a single more comprehensive health education/prevention program have met with some success, but this coordination is difficult to achieve in part because of the nature of the federal categorical funding of the individual prevention programs (National Association of State Boards of Education 1992).

2. **Multi-service youth centers**. State and county officials, together with community leaders, are becoming very interested in more comprehensive strategies to help troubled youth (for example, California's state-wide Healthy Start programs.) Centers and clinics have been established in or near schools to provide a variety of services to youth, especially in high poverty areas. In 1994 over 600 school-based clinics were in operation around the country. These centers vary from community to community. Some have a major health focus and provide basic preventive health care (health exams, nutritional advice, sexuality education, contraceptive counseling etc.) but very few contraceptives onsite (but will refer to outside agencies). Many school-linked centers are increasingly focused on providing social services, counseling for family problems and substance abuse, employment counseling, or recreation. But they all share a much more holistic view of adolescents (Ooms and Owen 1991).

   Typically, the centers are located in low-income communities where adolescents are at risk of pregnancy, school drop-out, and associated problems. The rationale for these centers was that co-location of these services both would help them be more accessible and also help the youth take better control over the direction of their lives. Some believe these centers hold promise for indirectly reducing rates of pregnancy as well as other problem behaviors. A recent review of the evaluations of six of these programs found a modest impact on contraceptive use but no impact on pregnancy rates (Kirby, Waszak, and Ziegler). One comprehensive school-based pregnancy prevention program in Baltimore has had some long term effect on lowering pregnancy rates (Moore et. al 1995(b) pp. 36-37). In a few communities, the vision has become broadened to include integrating the -service approach with improved education programs -- providing what some call a "full service school." (Dryfoos 1994)

## Family Planning Services

The primary policy strategy for preventing unwanted births by unmarried and married women has been publicly funded family planning services that provide sex-related information, contraceptives, and abortion related counseling to low-income women. A recent study conducted under the auspices of the National Academy of Sciences, points out that unintended pregnancy is both frequent and widespread in the U.S. and affects all segments of society -- not just teenagers or low-income women (Brown and Eisenberg, (eds.) 1995). Although the concept of "unintended" is difficult to measure precisely, surveys report that almost 60% of all pregnancies are either mistimed or unwanted altogether, including 40% of pregnancies to married women.

Federal funds for contraceptive services are provided primariiy through Title X of the Public Health Service Act, Title V of the Maternal and Child Health program, and through Medicaid reimbursement. In addition, most states, besides providing their share of the Medicaid matching funds, provide additional state dollars.

Publicly funded contraceptive services are provided primarily in private and public hospital and community-based clinics, community health centers, and secondarily in private sector organizations such as Planned Parenthood. Non-poor women can also access these services by paying fees and prices that are typically somewhat lower than in private doctors offices. Adult women also obtain contraceptive services from private physicians. Insurance reimbursement however often does not cover non-prescription contraceptives and other reproductive health services. And effective contraceptives are an expensive item in the monthly budget of low-income women.

Federally funded family planning services have successfully prevented large numbers of nonmarital pregnancies and are a highly cost-effective component of any prevention strategy. For every public dollar spent to provide contraceptives services it is estimated that an average of $4.40 is saved in funds that would otherwise have been spent for medical care, welfare and other services for women who by law would be eligible for them (Forrest and Singh 1990).

During the 1970s and early 1980s, the proportion of births that were unintended at conception decreased, but this downward trend had reversed by the late 80s. While federal funding for family planning was expanded throughout the 1970's, funding levels have declined in real terms since then (Ku,1993).

Although the erosion of funding does not appear to have led to a significant reduction in the number of women receiving services, it has changed the nature of the services provided (for example less outreach to special populations) (Sugland, Moore and Blumenthal 1994) The changing health care market, including the advent of managed care, and the uncertain future of federal funding threatens to jeopardize this safety net strategy.

While maintaining and improving access to family planning services clearly is an important strategy, it has not been sufficient to achieve widespread, effective use of contraception. Large numbers of teenage and adult women continue to engage in unprotected sex or do not use contraceptives regularly and consistently for a wide range of reasons that need to be addressed by other strategies.

As noted, especially since the advent of the pill and legalization of abortion, avoidance of nonmarital childbearing has generally been viewed as the woman's responsibility. Men have essentially not been served by the family planning system. However, in some areas of the country there is a growing awareness that it is important to conduct research on male chemical contraceptives and to emphasize the men's role in effective contraception practice.

A number of approaches designed to involve males in family planning are being tried out in several demonstration projects (Ooms, Cohen and Hutchins 1995). These include stronger emphasis on encouraging men and women to use condoms as being the only barrier method that protects against pregnancy and HIT and other venereal disease; new community outreach programs to educate men; services targeted specifically to high-risk men; and efforts to help men and women communicate about using contraceptives.

## Media Strategies

Most people would agree that the messages provided by the media have an important, and largely negative, influence on social and cultural values and attitudes about sex and nonmarital childbearing (Brown and Eisenberg, (Eds.) 1995). Yet, few studies have specifically examined the effects of the media on fertility and marital behavior (in contrast to numerous studies that have examined the effects of the media on violence.) Television networks have also been much criticized for not advertising contraceptives, even while contraceptive manufacturers have not seemed overly eager to pay for the ads.

There has been little serious discussion about the ways in which the media could be involved in indirectly helping to reduce nonmarital childbearing by promoting programming which de-glamorizes nonmarital sex and single parenthood and by offering more balanced and accurate information and education on sex, contraception and marriage.

In some states and communities, public service radio and television advertising has been used successfully to promote community-wide teenage pregnancy prevention campaigns. It is not clear, however, that there would be a similar community-wide consensus around designing similar public service advertising to discourage nonmarital childbearing among the population at large. But perhaps a focus on preventing unintended pregnancy would be more palatable.

## Current Federal and State Policy Initiatives

Policy officials have begun to consider a wider range of policy interventions that aim primarily to affect the motivation of unmarried women and men to avoid nonmarital childbearing. These strategies are presumably premised on the assumption that economic penalties and incentives can significantly affect sex, fertility and marital behavior.

***Enforcing Paternity Establishment and Child Support.*** In recent years, federal and state laws have been enacted to increase the collection of child support from absent parents. Initially, these efforts to strengthen child support enforcement focused on collecting support primarily from separated and divorced parents. Since the early 1990's, however, the efforts have broadened to include unwed fathers, and this has led to intense efforts to improve the rates of legal paternity establishment not only for children whose mothers received AFDC but for all children born outside of marriage. (Currently, only about one-third of such children have paternity legally established.) States are beginning to vigorously implement the OBRA 1993 requirements to set up systems for voluntary paternity establishment in hospitals. Initial results are promising, however it has been suggested that information and education about paternity establishment needs to be provided to the couple at an earlier stage, in their prenatal care visits to clinics and doctors' offices (Office of Child Support Enforcement 1994; Ooms, Cohen, and Hutchins 1995).

Since so many unmarried fathers are young, poor, and low-skilled, it is not expected that success will lead to greatly increased levels of child support payments in the short run, although payments may increase in the longer run as the fathers' economic situations improve.

An important, if secondary, rationale for the new emphasis on paternity establishment is the belief that if all young unmarried men were convinced they must support any child they fathered for the next eighteen years, this would motivate them to either desist from nonmarital sex, or be more responsible about using contraceptives. There are signs that requiring paternity establishment is gaining broad support from the community, support that is needed if this strategy is to be successful. It is much too early to predict whether, if paternity establishment increases, the numbers of unwed births will decline.

The extent to which this strategy is successful may lie partly in the extent to which policies are coordinated and thus reinforce each other. To gain maximum preventive effect, efforts to increase paternity establishment and payment of child support need to be closely coordinated with educational primary prevention efforts -- pregnancy prevention community awareness campaigns, and sex and family life programs in the school and communities -- so that young men (and women) get consistent strong messages about male responsibility from many quarters. This would require several service systems to work closely together including the public health service, division of vital statistics, school district officials, hospital administrators, child support officials, and community leaders -- and this is usually hard to achieve.

***Welfare Reform.*** In the current welfare reform debates, several so-called "tough love" proposals for changing the welfare rules have been put forward on the grounds that they will reduce the rates of nonmarital childbearing. These include denial of benefits to certain categories of welfare recipients, such as those under 18 or those who give birth to a child while on welfare (Family Cap proposals). Preliminary reports indicated a substantial fall in birth rates resulting from the New Jersey "family cap" provisions. However, later findings indicated the "family cap" has had no effect on nonmarital births. It is clearly still too early to draw any firm conclusions on the effect of the "family cap".

Another "tough love" reform has been in effect for quite a while. Since the enactment of the Family Support Act in 1988 states have been permitted to choose to deny benefits to a minor mother and child unless she lives with a parent, legal guardian or other relative, or in a residential institution. (Exceptions are to be made for certain specified conditions, such as if the minor parent's or baby's health or safety would be jeopardized.) This change has received widespread support, and a number of states are incorporating a version of it into their current waiver-based reforms. Three reasons have been cited for this reform. First, that it will discourage teenagers from having babies solely in order to be able to leave home and set up their own independent households, though there is no research evidence that they do become pregnant for that reason. Second this requirement requires at least one set of parents to be responsible for their teenagers' behavior. And third, that the baby will be better cared for if there are experienced adults in the household helping to provide care, an argument which receives some research support (see Furstenberg, Brooks-Gunn and Morgan 1987).

With respect to the overarching question of whether welfare benefits encourage nonmarital childbearing, Moffitt (this volume) reports on his comprehensive review of 20 years of research on the effects of public transfers on rates of childbearing. He points out that some of the methodological differences between the various studies can account for their having somewhat different results. Overall, he finds that while there do seem to be some positive effects, largely for white women (that is, the existence of welfare benefits does encourage nonmarital births), the effects are quite small, and can only account for a fraction of the strong upward trend in nonmarital fertility of the past three decades.

Another recent review of ten major studies of the relationship of welfare to nonmarital childbearing comes to the same conclusion: " Considering all the studies, a 10 percent change in benefit levels would result in a 5 percent change in the nonmarital birth rate for white women. Only one study finds a significant effect of benefit generosity on black nonmarital births, and that only in some specifications," (Acs 1995). Moffitt notes that these studies, however, shed no light on the broader question of what the effects would be if the welfare program was totally discontinued as some analysts, such as Charles Murray, are proposing.

The finding that economic incentives have only marginal effects on fertility is not surprising in view of the large body of psychosocial research literature that emphasizes the complex causes of unmarried pregnancy and childbearing, and the non-rational basis of most fertility behavior. It is relevant to note that many European countries provide much more generous benefits to single parent households than the U.S., yet their rates of adolescent pregnancy and childbearing are much lower. (It should be noted that the U.S. has lower rates of nonmarital childbearing among the over 20 year olds than Sweden and Denmark, but much higher rates than Germany, Holland and Italy.)

What about the effects of welfare benefits on marital behavior? Because AFDC benefits have traditionally only been available to single-parent households, the program has long been criticized for encouraging the break up of intact families and discouraging unwed parents from getting married. In 1988, as part of the Family Support Act, steps were taken to reduce this marital penalty by requiring all states to offer welfare benefits to two-parent families in which one parent was unemployed (AFDC-UP). Before the FSA, about half of the states had already enacted AFDC-UP programs.

This reform has resulted in only a small increase nationally in two-parent families receiving benefits. This is in part because the rules governing eligibility are quite restrictive, must have significant work experience within the previous year, which automatically made most young unwed fathers who have accumulated little or no work history ineligible for AFDC-UP. Moreover, states have had little incentive to publicize the availability of these new benefits and it is not clear how much the welfare staff or the public knew about the change in the program. It seems that the majority of the public still believes that two-parent families cannot receive welfare. No evidence is yet available about whether the expansion of AFDC-UP to two-parent families in these additional states has had any effect on separation, divorce, or cohabitation and marriage rates. However, one recent study examined this question with data from the National Survey of Families and Households prior to 1988, before the expansion of AFDC-UP to all states and before the new work requirement policies were in effect.

## Additional Promising Strategies

Theory and the findings of research and demonstration programs reviewed in this volume suggests that a number of additional strategies beyond those outlined above show promise and need greater attention:

For example:

- Labor market strategies to improve the employment opportunities and wage rates for low-income males, especially minority males in inner cities, would be expected in the long run to decrease nonmarital births by increasing marriage rates. Demonstration programs providing enhanced JOBS-type programs for non-custodial parents, designed primarily to increase their ability and motivation to earn sufficient income to fulfil their child support obligations, have had some promising results, and may also, in the long run, help to reduce nonmarital childbearing. For these and other reasons there is growing interest in some states in providing the non-custodial fathers of AFDC children with the same job search, training and employment opportunities provided to the welfare mothers (Bloom and Sherwood 1994; Lerman 1993). But, budget constraints are likely to make this strategy difficult to pursue widely.

- Marriage penalties of several types are embedded in the federal tax code. Little is known about their effects, but some research indicates they do reduce marriage rates. Thus, as a component of a strategy to reduce nonmarital childbearing it would be especially relevant to assess the effects of the substantial marriage penalty that Gene Steuerle has pointed out exists for working couples when, if they marry, their combined income reaches the upper range of eligibility for the Earned Income Tax Credit (see Ooms and Weinreb,1992). On the other hand if their combined income is in the lower range they will get a bonus for getting married.

- Public health (substance abuse treatment) and violence prevention strategies that reduced the high mortality and incarceration rates of African-American males could also be expected to reduce nonmarital birth rates in the longer term.

- Education reform efforts that improve school achievement of low-income male and female students would also be expected to reduce nonmarital childbearing in the long term, especially in the next generation.

- Family-centered services aimed at reducing rates of child abuse and family violence, and education, prevention, support and counseling programs striving to improve the stability and quality of marriages should also be included in any comprehensive, long term approach to reduce the rates of nonmarital childbearing.

## Conclusions

This review has illustrated the wide range of strategies that can potentially be brought to bear on the problem of nonmarital childbearing. What are some of the conclusions to be drawn from this review?

- Prevention strategies have focused on reducing adolescent childbearing, of which between 60 percent (for whites) to 90 percent (for blacks) occurs outside of marriage. Much less attention has been paid to nonmarital childbearing among adults over age 20, even though these births constitute about 70 percent of all nonmarital births. Research suggests that including a focus on preventing adult nonmarital childbearing is warranted for several reasons. However we know little about the causes, contexts, and consequences of nonmarital childbearing among adult women (whether never married, separated or divorced) and even less about unwed fatherhood among adult men. Nor has there been any study of the extent to which teenagers are influenced by the example (so-called modeling effect) of these high rates of adult unwed childbearing and parenthood

- Adolescent pregnancy prevention strategies have focused primarily on information and education about sexuality, abstinence, and contraceptive services, with only limited success. Yet the research emphasizes that young men and women's attitudes, values and motivation are as important as knowledge. Attitudes and motivation are influenced by several familial, social, program and economic factors and the moral messages that are prevalent in the wider social culture. This broader understanding suggests that a much wider range of strategies, involving education, welfare, labor and social service sectors need to be included in a more comprehensive approach to reduce adolescent and nonmarital childbearing generally.

- Education and service strategies aimed at preventing adolescent childbearing must not treat their sex and fertility behavior in isolation from other adolescent risk-taking behaviors with which it is closely associated, such as substance abuse, and school drop-out.

- Men need to be the target of prevention strategies, not only women. Since the advent of the birth control pill and legalization of abortion, which helped to launch the sexual revolution, women have been expected to assume the sole responsibility for prevention of pregnancy. Only very recently have prevention initiatives promoted the idea of male responsibility and sought ways to motivate males also to avoid unwed childbearing.

- Strategies to prevent nonmarital births have not focused on marital behavior. Until recently, marriage has not been considered a subject appropriate for serious policy research or public discussion. Although trends in marital behavior such as the sharp decrease in shot-gun marriages and the rise in the age of marriage have been well documented, the causes behind these trends have been little studied. And the research on marriage is not well integrated into the pregnancy prevention literature or current discussions of welfare reform.

- More attention (research, training) should be paid to the role of professional and voluntary pregnancy counselors in shaping the outcomes of nonmarital pregnancies.

- Although differences in childbearing and marital behavior between whites, blacks, and Latinos has been noted, very few studies have examined these behaviors among other racial groups and sub-groups, nor identified the implications of cultural, ethnic, geographic and religious differences for policy design and implementation. The absence of a significant body of studies on nonmarital childbearing in the various Hispanic populations is especially striking given their rapidly growing representation in the general population and their high rates of family poverty.

- Recent studies have highlighted the disturbing fact that significant numbers of pregnancies to young teenagers are a result of relationships -- often coerced -- with considerably older men. Many of these men appear themselves to have been victims of child abuse themselves. The program and policy implications of these findings have yet to be explored, but clearly strategies that assume that sexual intercourse is voluntary will not be effective for this sub-group of the population at risk. Some have called for stricter enforcement of the statutory rape laws but it is not clear whether this is possible and what would be involved.

In summary, efforts to reduce the rates of nonmarital childbearing have focused to date for the most part only on a portion of the problem -- reducing teenage sexual activity, pregnancy and childbearing. If the overall policy goal is to reduce nonmarital childbearing among the population as a whole, strategies will need to be expanded to include a focus on males of all ages and adult women, and on marital as well as sexual behavior. It is also important to consider these behaviors within a broader context of other dimensions of personal and family life with which they are intimately connected, such as employment.

The Administration and Congress have stated that reducing nonmarital childbearing is an important goal. Pursuing this goal will require strong leadership. First and foremost, there is a need to build public consensus around a renewed ethic of personal responsibility --- namely that every child deserves to have two married parents. The reasons for reducing unwed birth rates for all ages and sectors of the population -- including those who do not expect to become dependent upon public assistance -- will need to be clearly articulated.

The recent report of the National Academy of Sciences Committee on Unintended Pregnancy recommends a somewhat different focus, and proposes that the nation adopt a new social norm namely "All pregnancies should be intended -- that is, they should be consciously and clearly desired at the time of conception." (Brown and Eisenberg 1995, Summary p.7.)

Public officials at all levels, with the help of the television networks and other media, can help launch nationwide awareness and public education campaigns to rally public support around this broad goal and the special objectives underlying separate initiatives.

This chapter has reviewed the wide range of strategies that can potentially be employed and the variety of actors and agents, in addition to the women and men themselves who need to be targeted. Federal policymakers must now decide strategically on priorities and the best use of federal resources. The major focus should be on preventing nonmarital pregnancies from occurring at all. A secondary focus should be on encouraging alternatives to unwed parenthood, once pregnancy has occurred.

A good place to start is to continue providing funds for strategies that appear to be working while trying to improve them, such as continued funds for family planning but encouraging programs to focus more on males; to conduct community wide campaigns aimed at the adult as well as the teenage population; and to strengthen current efforts to improve labor market opportunities, not only for AFDC recipients, but also for low income, and especially minority males. At the same time it would be useful to intensify current efforts to enforce male responsibility, and examine and perhaps reshape some of the childbearing incentives and marriage disincentives embedded in existing tax and welfare programs.

The federal government has a unique responsibility and capacity to sponsor research and demonstrations to fill in the major gaps in understanding this issue, and to promote and pilot new program directions and strategies, especially for those population groups who are deemed to be at highest risk.

However, it is important to remember that there are many limitations to the role that the federal government can play. Government policy is a limited instrument with which to try to affect changes in sexual and marital behavior, deeply rooted as they are in broad societal values and attitudes and intimate behavior. In addition, implementation of any one of these strategies described here requires the involvement, coordination, and cooperation of stakeholders at federal, state and, local community levels in the public and private sectors. Responsibility for reducing unwed childbearing must be widely shared with every sector of the community.

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## Appendix I: A Framework to Help Plan and Assess Policy Strategies

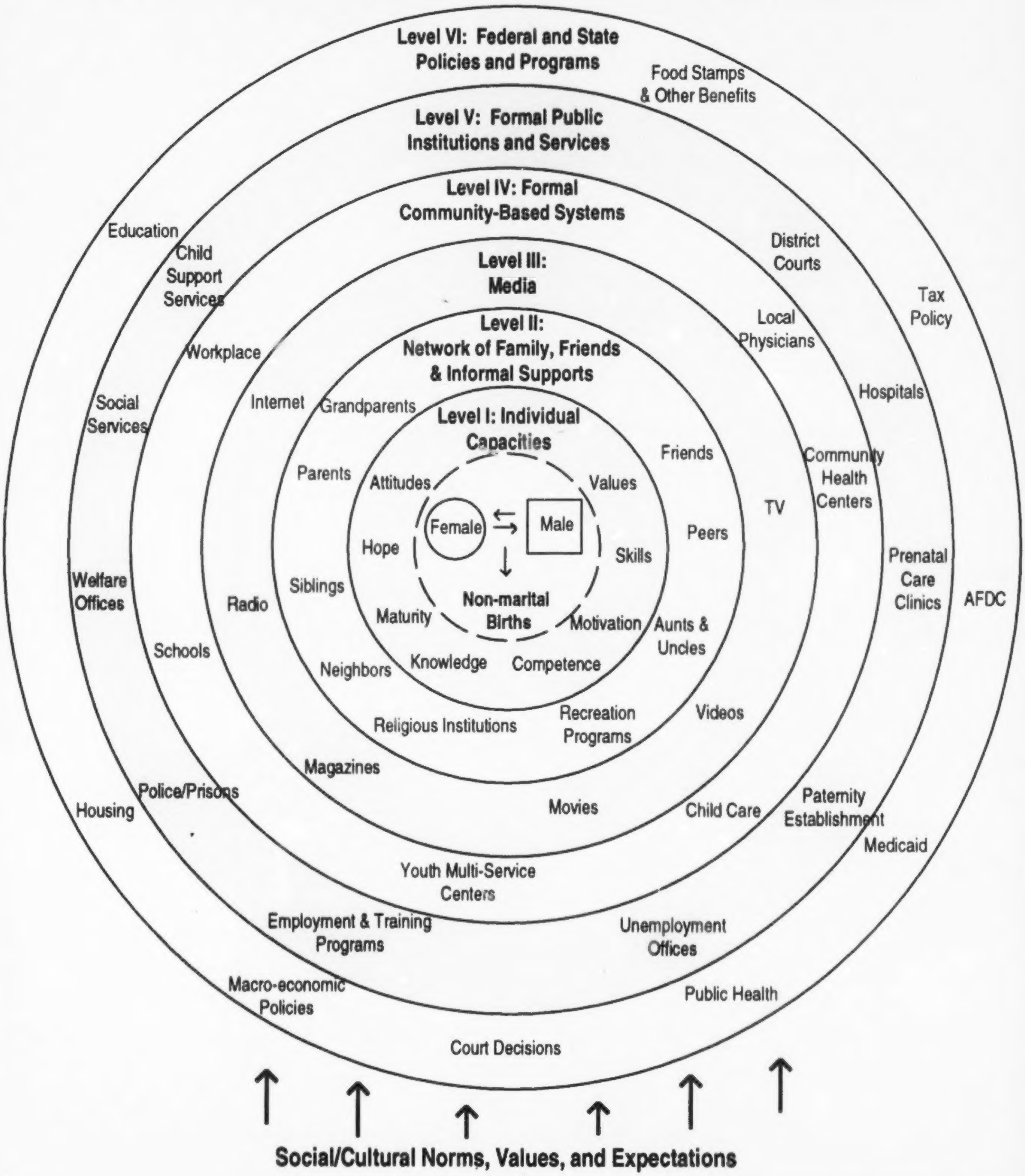
An ecological framework helps to organize and integrate the complex findings and relationships that emerge from the -disciplinary body of studies reviewed for this report. While the majority of the studies and interventions focus on the behavior of women, this framework explicitly asserts that fertility and marriage behavior needs to be understood as the product of the interaction of men and women with each other and with a complex array of individuals and factors in their environment. This environment can be depicted as having several levels. Each of these levels influence both each other, in particular, each is shaped by the level surrounding it. Chart I represents schematically the different levels of social and political environment (or human ecology) which need to be the target of strategies to prevent unwed childbearing.

At each level, some of the key factors that have been found to influence fertility and marital behavior are noted. First, the couple's relationship and interactions are shaped by their own inherited capacities and predispositions and through their acquired knowledge, attitudes, values, personal skills, and competencies (*Level I*). Second, their behavior is strongly influenced by the attitudes, values and behavior of individuals within their family, peer group and neighborhood, and also those expressed through the media *(Levels II and III*).

Third, both the couple and members of their informal systems are affected by the institutions, programs, and services with which they regularly interact in their neighborhood and work environment *(Level IV)*. And fourth, they are influenced by larger, more distant and formal private and public sector institutions that provide a range of services, and institutionalize behavioral norms and expectations through laws and regulations which provide various behavior incentives and penalties (*Level V*). At the outer layer of the diagram *(Level VI)*, state and public programs and policies, including broad economic and labor market conditions, constitute another set of parameters that indirectly affect marital and fertility behavior. The bottom of the chart indicates that broad societal norms, expectations, and values are embedded across every level and are expressed both formally and informally in the interactions between all factors.

As will be noted in this chapter, intervention strategies may target different actors and agents at different levels. For example, sex and family life education strategies may aim to directly affect the knowledge and values of young men and women at risk (*Level I*), or indirectly through affecting their parents and neighbors (*Level II*), or the media (*Level III*).

## Chart I — Factors that Influence Non-marital Births: An Ecological Framework



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## Appendix II: Questions for Assessing Policy Strategies

Using the ecological framework (Chart I) as a guide, policymakers should subject proposed policy and program interventions to a series of questions:

- **Who or what system is the direct target of the intervention strategy (i.e., what is the level of intervention)?** Prevention strategies reviewed in this report choose one or more of the following targets:

  --All women of childbearing age.
  --Only teenage women who live in poor urban and rural areas.
  --All young men.
  --Only those males who are poor and live in urban, minority communities.
  --The relationship between sexual partners (communication, negotiation, and mediation skills).
  --Children/youth prior to childbearing age.
  --Parents, other family members, friends, and peers in school or at the workplace.
  --Neighborhood or community leaders who help to define the social and cultural norms in the community.
  --Public and private service agencies and human service professionals that provide unmarried teens and adults information and access to services.
  --Media representatives who disseminate information to the public and directly and indirectly promote cultural and moral values.
  --Policymakers and program administrators at county, state, and federal levels who design and implement prevention strategies and/or influence the labor market or the economy more broadly.

- **What are the objectives of the intervention? What specific behavior/condition does the strategy seek to change and/or promote?** The range of objectives related to the overall goal of prevention (of nonmarital childbearing) include the following:
  (Table I summarizes these objectives and the related strategies)

  -- Delaying young peoples' initiation of sexual activity.
  -- Ensuring that unmarried, sexually active women and men practice regular and consistent use of contraceptives.
  --Encouraging unwed parents, once a pregnancy has occurred, to choose alternatives to unwed parenthood.
  --Coordinating or consolidating preventive efforts and services for youth at high risk of unwed childbearing and related self destructive behaviors.
  --Improving education and economic opportunities for young men and women at risk of unwed parenthood.
  --Establishing clear consequences for nonmarital childbearing within public programs -- without harming children.
  --Removing apparent program and policy disincentives that may encourage nonmarital childbearing (and discourage marriage).

- **What is the theoretical rationale that underlies the proposed intervention? What is the pathway or mechanism through which the strategy attempts to change behavior? Is it based on the findings of research, does it have scientific plausibility?** Policy officials seldom articulate the theories that underlie their proposed remedies. Yet it is only when intervention strategies are based on a well-grounded theory that they have a clear internal logic and plausibility. They are also easier to evaluate. Strategies that have no sound theory base are very unlikely to be effective.

Many behavioral theories provide explanations for fertility and marital behavior (see Moore et. al. 1995). For example, social learning theory maintains that to avoid unwed pregnancy and childbearing an individual must have knowledge and understanding, belief in his or her capacity to take the needed action, and the ability to weigh the costs and benefits of any action.

On the other hand, some sociologists emphasize theories about the culture of poverty, which argue that nonmarital childbearing has become an acceptable and self-perpetuating norm in communities that offer severely limited personal and economic opportunities and poor environmental conditions. Until these social conditions are changed, individuals cannot be expected to change.

Economists are more likely to draw upon theories regarding economic incentives, opportunity costs, and utility maximization. They suggest that young women and men do assess the various financial and other costs and benefits involved in nonmarital childbearing and act in a way that maximizes their own utility as they define it. (A popular version of this theory is that if you subsidize/reward a behavior you will get more of it.)

Which of these (and other) theories is most likely to lead to the development of effective intervention strategies? No one theory can explain the complexity of human behavior. Like the proverbial four blind men and the elephant, each theory describes only part of the overall story. Some theories are more useful for designing policy-level strategies, others for clinical and program-level interventions. To date, no overarching theory has attempted to integrate the insights of different disciplines.

- **Is the proposed intervention based on a short-term or long-term strategy?** Most interventions focus on achieving short-term outcomes for those currently at risk for nonmarital childbearing. However, many promising interventions may require a longer term strategy and their success needs to be assessed over a period of several years. For example, research clearly shows that the more education a woman has the less likely she is to give birth nonmarital. Additionally, the educational status of the mother is also a key predictor of the likelihood of her daughter becoming a teenage mother. Thus, interventions designed to improve young girls' educational achievement may, in the long run, reduce rates of nonmarital childbearing for two generations.

Similarly, strategies designed to increase economic opportunity for low-income men by improving education, job skills, and wages can also be expected, in the long run, to reduce rates of nonmarital childbearing by encouraging higher rates of marriage.

And, due to the strong intergenerational effects of single parenthood on unwed childbearing, any strategy that succeeds in increasing the proportion of children growing up in stable two-parent families will help to reduce the rates of nonmarital childbearing in the next generation.

ISBN 0-16-048332-8
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HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics
6525 Belcrest Road
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DHHS Publication No. (PHS) 95-1257
5-1454 (9/95)

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